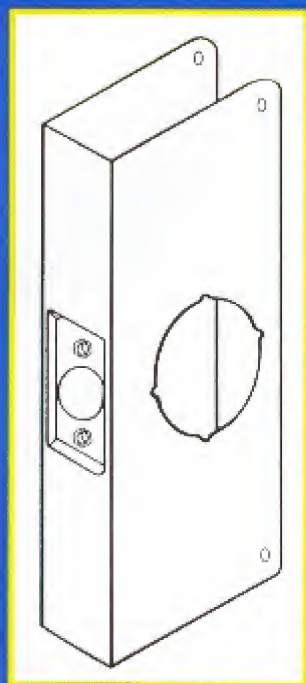


February 1993

The National Locksmith®



New & Profitable Ideas

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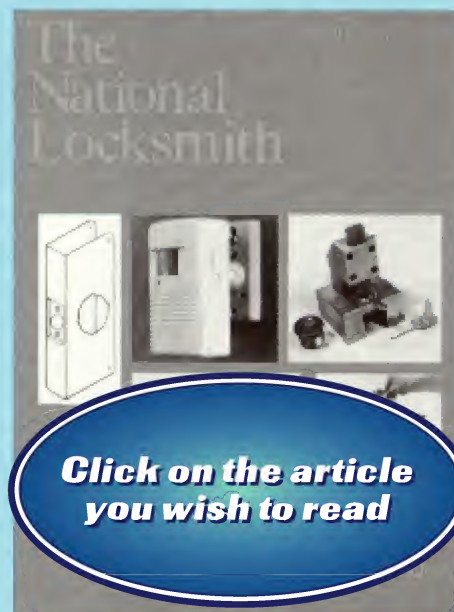
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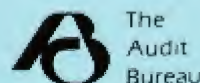
On The Cover

Our *New & Profitable Ideas* feature includes the following products: (clockwise from top left) Don-Jo's classic wrap-around; Safety Technology's upgrade of their Hazard Stopper; the Accumark I from Security Corner; Bonafide Factory Products' Perma Vault counter drop cash protection system; and DynaLock's 1 new #3000 delay egress locking system. These and other products are described beginning on page 42.

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Commentary

I Am A Locksmith

I am a Locksmith. All too often I see you after a traumatic burglary, when you are scared and upset. Many times you call me to improve your security when it is already too late. Your home is a shambles and your property is stolen. Your door locks were old, and the door frame was weak. Entering your house was an easy task for the criminal. But I cannot turn back the clock and prevent your misfortune.

When your business is vandalized, I'm quickly on the scene. I fix the locks which have been super-glued, or I install a new lock when the old one is broken. When you lose your door key, I come right over to pick the lock. I let you in your business and I make you a new key.

I am a Locksmith. Sometimes you call me when your keys are locked in your car. You are frustrated by the inconvenience and expense of having to call me. But when you call, I will be right there with the tools and training to resolve your problem without damaging your car.

I'm there when you lose all your car keys and you didn't save the code tags. I pull down the steering column to remove the ignition. I read the code numbers on the lock and make you a new key to get you on your way.

I am a Locksmith. I am available to cut you a new key when the one you got at the hardware store doesn't work. I'll install a new deadbolt for you when yours fails to work. You bought a cheap import at the home center, but you were angry when you realized no replacement parts were available.

I am a Locksmith. But I must also be part psychologist. Often, when you call me, you have had some sort of trouble. Security is not usually on your mind unless you have had a problem. It is not easy to deal with people when they are upset.

I have been trained to secure and protect your home, your business, your property...and yes, even your life. I know that many hardware stores sell locks cheaper than I can. I know that in some towns the police will open your locked car at no charge. But I will be there for you when the cheap imported lock breaks. And I will be there for you when the police damage your car with their "free" service. *I am a Locksmith.* I take my profession very

seriously. In the best of all worlds, you'd call me to repair your locks *before* someone took advantage of them. In my dreams, people realize that a locking door knob is not enough protection for them and their family. I'd love you to call me for a deadbolt before someone rips off your doorknob with a pipe wrench.

I am a businessman, a diplomat, a psychologist and a Locksmith. I spend my entire career trying to help you keep out the bad guys. Sickness is the enemy of the doctor. And the criminal is the enemy of the Locksmith. I will be there to help you after the break-in. But it will bother me to know that a little security would have prevented your loss.

I will be there to help you protect what is yours. I offer products and services to help secure cars, homes, businesses and more. I read trade magazines and belong to associations so I can learn more about how to protect you. My whole profession is sworn to protect and secure the property and safety of the public.

Of course you can call me after a loss. But I would rather be there first to help prevent that loss. Criminals offend me. Your security is a sacred trust to me. *I am a Locksmith.*



Marc Goldberg
Editor/Publisher

Reprinted from April 1989

February 1993 5

Letters

Comments, Suggestions and Criticisms

The National Locksmith is interested in your view. We do reserve the right to edit for clarity and length. Please address your comments, praise, or criticism to Editor, The National Locksmith, 1533 Burgundy Parkway, Streamwood, IL 60107. All letters to the editor must be signed.

Veteran Locksmith Warns Against 'Free Labor'

Enclosed with this letter was a locksmith advertisement offering free installation with the purchase of two or more deadbolts.

Dear Marc:

With this letter I am including an ad that ran (and does occasionally run) in a local newspaper.

The thing I find interesting is that the locksmith running the ad does not consider his time of any value. The ad writer must be young. When I was a kid I worked for nothing. I don't anymore because I am old enough to know that time is my most precious most rapidly diminishing asset.

It seems a good way to put themselves out of business unless they get an ungodly price for their deadbolts, which also will do it if people compare prices.

The one thing I realize, as a down-the-street competitor is that their ads help me. When people call for quotes I tell them that I think my twenty plus years of experience is worth

something. My business increases every time they run similar ads.

My point is, I guess, that desperate people do desperate things and those things can backfire. To the new locksmiths: remember that doing nothing is better than working at a loss.

Jerry La Pierre
Maine

'Rookie' Locksmith Thanks Veteran Who Helped

Dear Marc:

I would like to comment on an area that I have seen often in the Letters to the Editor section. It's about the veteran locksmiths treating the new locksmith like dirt. I've got to agree with those letters to a certain point. I also have been treated like dirt by veteran locksmiths. This letter is to let the new locksmiths know not to give up. I started my business in Hinesville, GA. I Was on my own, and yes I had my share of problems. I ran my business part time because I was in the military. I had several problems with other locksmiths wanting to set my prices, and wanting to run my business. I finally contacted another locksmith that had never contacted me. His name was Doyle Brewer and he was owner of Coastal Locksmith in Hinesville GA. I can't begin to tell you how much this man and his wife helped. They sent me business

several times, and helped when I ran into problems. I was even invited to ride with him to learn more. I did accept, and did learn a lot.

I have recently left the military and Georgia, and now operate my business full time in Rome, NY. I'm not sure how to repay Mr. and Mrs. Doyle Brewer for their help because they insist that I don't owe them anything. So I hope by writing this letter they will know how much I appreciated everything, and to let the new locksmiths know that not all veteran locksmiths are jerks. THANKS to Mr. and Mrs. Doyle Brewer.

Edward F. Haynes
New York

A Locksmithing Cat 'Tale'

The following is an account of an in the life of a resort town locksmith.

It's about 6 p.m. Saturday evening. I'm about to hang it up after a financially good but hectic business day. The summer people are pouring into my resort town and from the type of calls I've been getting I know their habits haven't changed.

The phone rings. It's a woman calling from a lakeside village some twenty miles north.

"I'm in a condo," she said, "and the

Continued on page 85



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ASP Covers the World of Auto Locks

Seroogy Speaks...

Notes From the Managing Editor

As I wrap up my first full month with *The National Locksmith*, I have been thinking more about the battles of the locksmith. When I operated my own company, I worried over future licensing requirements. I fought the battle of manufacturers turning to large chain stores to sell their product, leaving the locksmith in the cold. And I combatted the never ending battle of trying to remain informed on changes in the auto and commercial lock field.

These are the problems I thought about everyday. So, maybe it should be no surprise that now I'm inundated with calls and messages from locksmiths going through the same problems. I guess I wasn't alone. And the fact of the matter is, *you* are not alone. Realizing this, however, tends to be an obstacle.

The locksmith trade is born of a fiercely independent people. We are obsessed with the intricacies of mechanical and electrical operation. We are intensely analytical, creative and inventive. We are gifted with the ability to solve problems using our mechanical and creative talents.

These traits are the root of the locksmiths' competitiveness, our individuality. It's no wonder we face the politics of government licensing, the profit orientation of big business and the proliferation of nonsensical lock changes with disdain. And when we find ourselves put up against these faceless entities, the challenge seems insurmountable. What can we do?

I've found that adopting the right perspective to be of root importance. When I found myself butting heads with customers because they could get the same equipment "cheaper at Builder's Square," I was furious at the manufacturers.

When I see licensing that requires a high price and no competence, I am furious.

When I have to add 100 new keyblanks, new ignitions, facecaps, miscellaneous tools and volumes of soon-to-be-dated manuals and code books to my inventory every six months, I get furious.

It's as though "everybody's out to get the locksmith!"



Tom Seroogy

This is a perspective many locksmiths live with. And, until a few years ago, it included me. In fact, I was real good at passing the blame. Everybody else was at fault. I mean, for gosh sakes, didn't these people realize that here's an honest guy trying to make a living, and all they can do is make it tougher for me!?! Right?

Wrong. When I came back in for a reality check I figured out a couple of things. First, very little of what is done is focused at the locksmith. In fact, most changes are not made to spite the locksmith, but to improve conditions for the company or group of people making the decision. The condition of the locksmith is rarely if ever part of the decision.

Second, things are going to change no matter how much blame I managed to throw around.

Third, if everything else changes and I don't, *who is really to blame?*

The point is, I needed to be less vindictive and more flexible; I needed to move with the change. I don't always have to agree with the direction, and when I can affect a change, I will, but I have to be flexible.

Even with the new perspective, however, I need help. And the two best places I found for help was my local trade association (Greater Chicago Locksmith Association) and *The National Locksmith*. Both of these would be considered a "support group" by today's parlance.

Associations not only serve as a means of training and learning, but can also serve as a unified voice when it comes to politics and laws being passed that affect our operation. They also serve as ambassadors for the locksmith to the manufacturers and distributors. Together we can create a forum where the manufacturer comes face to face with the locksmith, making the best of what sometimes seems like an adversarial relationship.

And, of course, having a steady stream of information is critical. That's where a publication like *The National Locksmith* comes in. (Is this a plug, or what?) My main objective is not to give you small flash-in-the-pan types of information or immerse you in a flood of product hype written by non-locksmiths.

As a locksmith and a writer, it is my job to provide you with *usable* technical information that you can always refer back to. In fact, this is the objective of our new Security Certificate Program. While many manufacturers will be displayed and their products shown, the information will be for the purpose of teaching you the service and installation of the product.

Most locksmiths, like myself, find that if they know the ins-and-outs of a product, and are comfortable working with it, then they will sell that product. And profit from it! Even manufacturers agree that a single article that creates a degree of comfort and confidence in a product is more beneficial than 12 issues of hype.

One thing you may notice as we begin the certificate test articles, is their simplicity, especially in electronic security. These articles will become increasingly technical. But, since there is often little proficiency in this area, starting at the very beginning will enable even the beginner to get his feet wet.

So, as we move forward together, be flexible and learn to lean on those groups who share a common interest and a common goal. We are locksmiths, working to help make locksmithing a better profession for us all. §

Technitips

Helpful Hints from Fellow Locksmiths



Send me your Technitips. Who knows, you may be our next winner! c/o The National Locksmith, 1533 Burgundy Parkway, Streamwood, IL 60107

by Robert Sieveking

February's Best Tip

When installing lock cylinders in a door, removing or replacing an emergency exit device, or what ever the job. I find this Technitip very handy. I work on some commercial buildings and schools that have banks of doors, from two to six doors wide. Even though I work on only one at a time, patrons and students seem to think the only working door is the one I'm working on. Illustration one is relatively self explanatory. When working on one of the doors, instead of fighting the closer tension and redirecting the endless stream of Susie snowflakes that try to breeze through the door while I'm working on it, I put my "club" in the door. One end of the

These Prizes Awarded Each Month!

All-Lock A-7000 VATS Decoder

HPC Pistolpick

Silca Rubberhead Keyblanks (100 blanks)

ESP PR-13 Professional Lock Pick Set

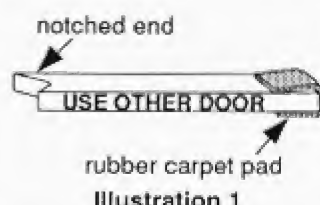
Sieveking Products EZ-Pull GM Wheel Puller

Fort Lock Backer Board Display Panel

Submit your tip and win!

Handy Door Holder

directs patrons to other door



"club" is padded with rubber foam carpet pad, and the other is notched to fit over the jam of the door. The door is held open, so I don't have to fight the tension of the closer, and the "club" is lettered to direct the flow of traffic politely to another door. Paint the "club" bright orange and letter it neatly in black, for best visibility. It has saved me a lot of

How To Enter

All you need to do to enter is submit a tip, covering any aspect of locksmithing to The National Locksmith. Certainly, you have a favorite way of doing things that you'd like to share with other locksmiths. Why not write it down and submit it to: Robert Sieveking, Technitips' Editor, The National Locksmith, 1533 Burgundy Parkway, Streamwood, IL 60107.

Tips submitted to other industry publications will **not be eligible!** So get busy and send in your tips today. You may win cash merchandise, or even one of many key machines or code book sets! At the end of the year, we choose the winners of the listed prizes.

Last year dozens of people walked off with money and prizes. Wouldn't you like to be one of the prize winners for 1992? Enter today! It's a lot easier than you think!

Every Tip Wins 'Locksmith Bucks!'

Yes, every tip published wins a prize. But remember, you must submit your tip to *The National Locksmith* exclusively. Each and every tip published in Technitips wins you \$25.00 in Locksmith Bucks! Use this spendable cash toward the purchase of any books or merchandise from *The National Locksmith*. You also receive a Bonded Locksmith bumper sticker and decal. Plus you are now eligible for the really big prizes!

Best Tip of the month prizes!

If your tip is chosen as the best tip of the month, you will win \$50.00 in cash as well as \$35.00 in Locksmith Bucks! Plus you will receive a quartz Locksmith watch, a Bonded Locksmith bumper sticker, decal and a Locksmith Cap. Plus, you may win one of the annual prizes.

explanation and excuse me time. Both sides of the "club" are lettered, which makes it reversible.

The "club" is a simple 2 by 4 about 22" long, padded, notched, painted a bright color, and lettered as you see in the illustration.

Marvin A. Meyer
Iowa

All-Lock VATS Decoder Winner

This Technitip concerns the advantage of picking a cylinder with the tension tool at the top of the keyway. (The top being the side of the keyway with the pins) Over the years, I have found that some locks are much harder to pick than others. In developing a technique to overcome the more difficult cylinders, I have found that there is an advantage to the position of the tension wrench in the keyway. When the tension wrench is at the bottom of the keyway, there is a possibility of dragging on the inside of the cylinder or even worse lifting the plug and decreasing the width of the shear line. The width of the shear line being the tolerance between the inside

of the cylinder and the outside of the plug, measured at the pins. Decreasing the width of the shear line would tend to make the cylinder harder to pick. With the tension wrench at the bottom of the keyway, the open portion of the keyway, which allows the pick tools to enter and manipulate the pins, is partially obstructed. Free movement of the pick is seriously inhibited.

By placing the tension tool at the top of the keyway, closer to the shear line, the tension pushes the plug downward, widening the shear line and making the cylinder easier to pick. With the tension tool at the top of the keyway, the open bottom portion of the keyway is unobstructed. The pick tools can be freely manipulated to lift and feel each of the pins. Picking, after all, is a feel and manipulate type of skill, more than a frantic wiggle and jiggle motion of the pick.

I hope these observations help a fellow locksmith.

Brad MacKenzie
Ohio

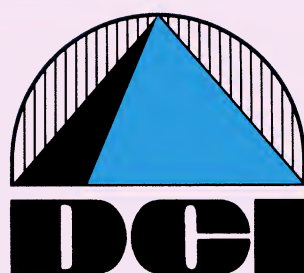
HPC Pistolpick Winner

This Technitip concerns a novel way

to use a bottle opener, to open a late model Chevrolet Caprice. The other night I was called to open the trunk of a new Chevrolet Caprice. The keys had been locked in the trunk. Without explaining all the circumstances that made me decide to open the trunk instead of going to the glove box lock or electric trunk opener, this is the method I discovered.

By removing the phillips head screws that secure the license plate light near the trunk lock, you will be able to remove the light and pull it out of the way. You will be able to clearly see the trunk lock actuator near the hole. The hole, however, is not large enough to allow a pair of pliers to grip or move the actuator in a way that would open the trunk. The bottle opener is perfectly suited for the job. Slip a string through the key chain hole, to make sure the tool is not accidentally lost into the trunk, and slide the opener through the hole and slip the slot in the opener, shown in illustration two, over the flat metal actuator. Use the leverage gained by the opener to rotate the actuator to the left. The trunk will open right up. Replace the license plate light to complete the job.

Continued on page 14



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Continued from page 12

Bottle opener doubles as a car opener

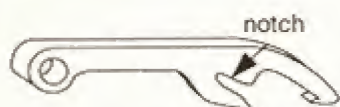


Illustration 2

Bill Adams
California

Silca Keyblanks Winner

Some locksmiths have a problem using a shim pick properly. If the tip of the shim is modified to form a "V" or cup shape, as you see in illustration three, many of the difficulties will be solved. The shape of the tip centers the shim over the combining pin, which helps to keep the shim straight or in line with the combining pins. The shape of the tip also seems to slide over burrs and irregularities in the plug, which would "stop" a square tipped shim. If you're having a problem with a particular cylinder, give this Tip a try.

A second Technitip, which I used

Modified Shim simplifies shim picking

Tip of shim is trimmed to a "V" or cup shape.

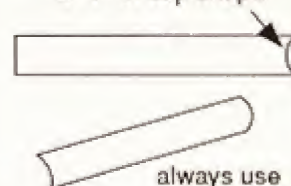


Illustration 3

recently, concerns an Audi automobile. The keys were locked in the trunk. I opened the passenger compartment and pulled down the arm rest in the rear seat. Behind the arm rest is a zippered plastic barrier. This "pass through" allows the driver to pass a pair of snow skis from the front of the car into the trunk area, so they can be carried inside the car. I unzipped the plastic barrier, and fished around, through the hole, with a flash light, until I found the keys. This Technitip saves impressing or picking the trunk cylinder.

William Kase
California

ESP Pickset Winner

This Technitip concerns a method to prevent galling and seizing of drill and milling cutters, when working in aluminum. I recently discovered that if you spray a little WD-40 on your drill or milling cutter, before you drill or use a milling cutter in an aluminum store door, the chips will not adhere to the bit.

The primary problem with working in aluminum is the gummy nature of the metal when it is heated by the tool bit. Use a sharp tool, that is not allowed to slip or idle in the cut. Keep the tool cool, by using a good quality cutting fluid. Operate at reduced speed when possible, to further reduce the heat build-up in the tool.

Thomas J. Schulte
California

E-Z Pull GM Wheel Puller Winner

This Technitip concerns opening a GM trunk, when the tailpiece has been pulled out of the rear of the cylinder. This is fairly common, especially when people try to tie the trunk lid down by passing the rope or twine over the lock



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actuator. When the trunk lid is finally closed, the key will operate the cylinder as it should, but the latch will not release.

To solve the problem without resorting to the drill, first remove the face cap of the trunk lock. Lift and tear the center of the chrome cap with a small screw driver, then carefully remove the face of the cap only. Be careful not to damage the paint. It is only necessary to remove the portion of the cap that keeps the plug from being removed. Insert the working key and rotate the plug clockwise to the removal position. Remove the plug. You should then be able to operate the lock with a long screwdriver.

This tip works with GM locks that are positioned over the latch body only. Remote actuated cylinders and those that have long or flexible shaft type actuators will not be opened by this method. But, when it works, this method will allow you to open the trunk without destroying the lock cylinder.

Drew Dailey
Kentucky

Fort Lock Display Panel Winner

Here's another Technitip, to share with our fellow craftsmen. It concerns the repair of a common mortise entry and store door lock. Many of the newer locksmiths may be called to repair a mortise lockset of this type, with the primary symptom being that the latch will not fully retract with the outside thumb piece. The mortise lockset, in many cases is not the problem. Wear in the lift arm prevents the mechanics of the lockset from retracting the latch. The easiest repair is to fill the worn area with brass braze, and reshape the arm as you see in illustration four. The increased lift of the built up section of the arm will, in most cases, restore

proper operation of the lock. A second thing to check is the steel support bracket, pivot axle, and axle hole. Replace the pivot axle if it is badly worn. If the axle hole is worn, you may want to fill it with braze when while you are filling in the worn lift arm. Re-drill it to the proper size, being careful to position the hole in the proper place..

Bill O'Dwyer
Connecticut

Though this may not be the most original Technitip, it is one that I use

and have had pretty good luck with. This is a method or phone technique that we have developed, to handle price calls for car openings.

Caller: How much will it cost, for you to come out and open my car?

Us: Do you belong to the Auto Club, road hazard, or tow-in insurance?

Caller: Yes, I have emergency road service coverage.

Us: Then it will cost you only 29¢.

We then explain that we will open the car, they will pay us, and then they can send the receipt to their insurance company or auto club for reimbursement. The total cost to the

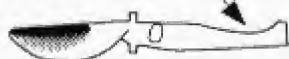


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Modified Thumb Piece saves mortise lockset

Wear, in the lift arm prevents the latch from being fully retracted.



Brass braze fills the wear



Pivot or axle hole

Illustration 4

customer is only 29¢, which is the cost of the stamp to send in the receipt.

We have found that a majority of the people have this coverage but don't realize that Locksmith Services are covered the same as towing. They are usually quite relieved to learn this.

We also assure the customer that we will open the car with no damage what-so-ever, and that we are certified, bonded, and insured professionals.

We hand print, on the receipt, "Free set of car keys made in our shop." This technique increases sales in the shop (locks, key rings, and etc.) and makes the customer aware of the other products and services we provide, for example, commercial master key systems, safes, car alarms and specialty locks. Every car lockout has the potential for additional business, if handled in a courteous and professional manner.

Kent Lash
Kansas

This Technitip concerns an ignition substitute for a 1970 Volvo 145S passenger car. Published information indicates that the only ignition cylinder available, for a Volvo of this vintage is the Automotive Security Products C-

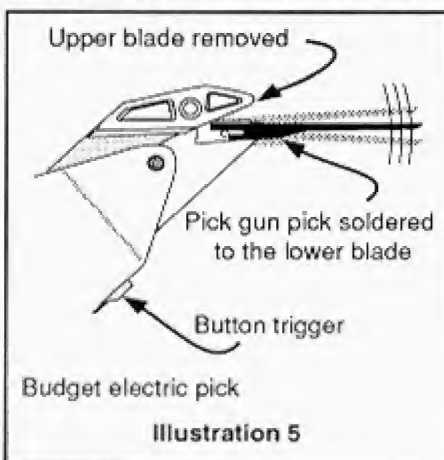
OO-101 ignition. It should replace most 1968 to 1972 140 series ignitions. The auto I was asked to service had a slightly different ignition lock. The primary problem was the orientation of the cam on the rear of the cylinder assembly. The lock cylinder could not be installed into the lock housing, so that the cam would engage the switch properly. A raised ridge runs the length of the cylinder that prevents it from being inserted "wrong." By filing the ridge off, the cylinder assembly can be installed so the cam is positioned to operate the switch properly. However, when the ridge is removed, and the ignition is installed 90° away from its intended orientation, a new hole must be drilled in the "housing" for the retaining drive pin. Choose a place that will not injure the lock cylinder.

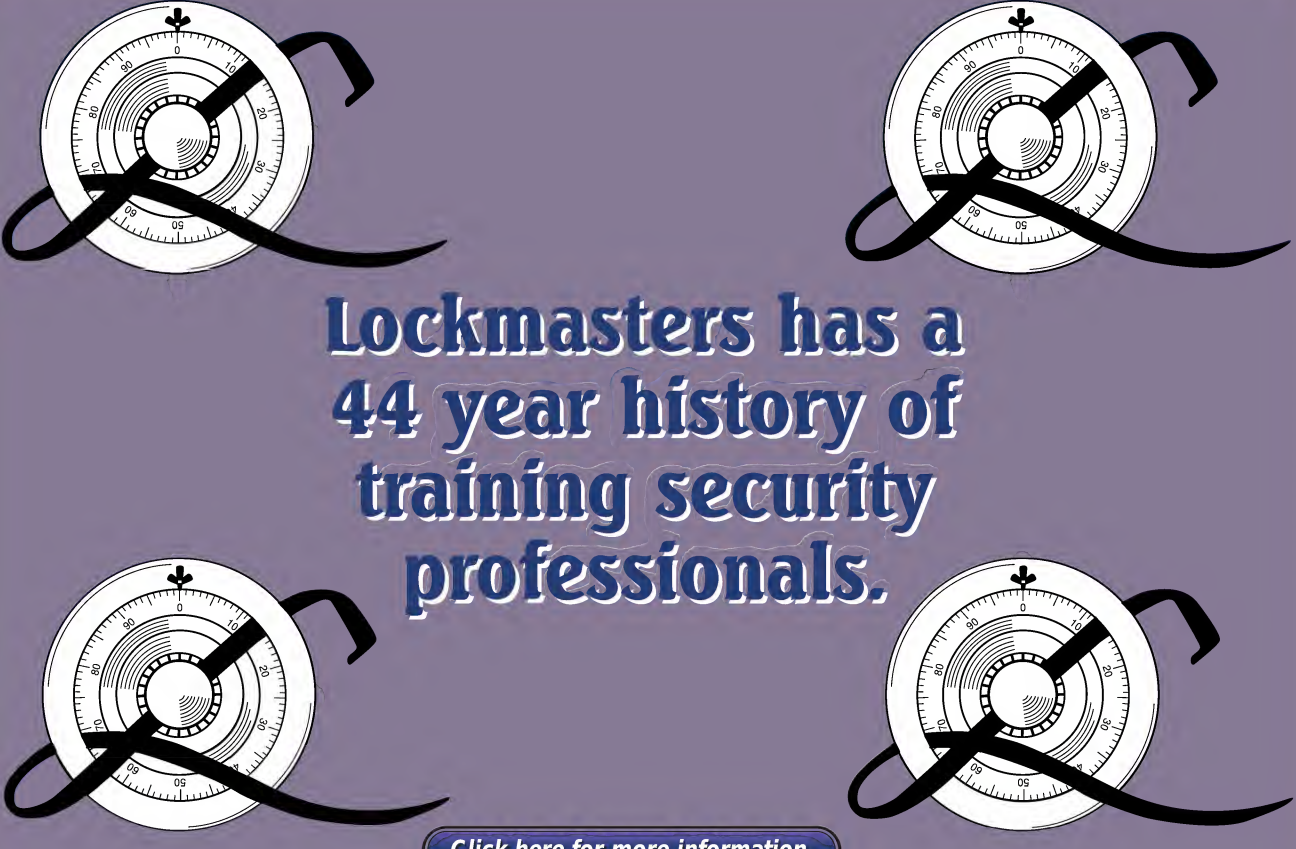
The loss of the raised ridge will mean that the drive pin, which retains the cylinder in the housing is also the only thing that will prevent someone from turning the "whole ignition" with a screw driver. Be sure the retaining pin, or pins, are secure, and their positions are well thought out. Good Luck.

Woodrow L. Quinones
Oregon

This Technitip concerns an easy to make and inexpensive electric pick. The Black&Decker battery operated electric scissors, called the snip-ez, is ideal for this purpose. It is extremely easy to convert.

To convert the scissors to a motor pick, I first removed the upper and lower metal scissors blades. They are held in place by phillips head screws, which should allow the blades to be easily removed and replaced. Solder a straight pick, or pick gun pick flat to the bottom scissors blade, as you see in illustration five. You may need to reshape the rear of the pick, to dodge





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the mounting screw hole, and prevent solder from getting into the threaded mounting hole. After the blade has cooled, remount the scissors blade/pick to the electric snipper to complete the conversion. The blade mounts into a recess, which prevents it from shifting or coming loose, while the pick is being used. The beauty of this Technitip, is that no modifications were made to the sniper body or jaws, which allows the whole thing to be returned to its intended use, should you decide that the electric pick is not as handy as you thought it would be. Extra blades are included with the unit, and can be easily re-installed into the snip, so you won't have to unsolder the pick blade.

Editor's Note: May I include that The National Locksmith Guide To Picking and Impressioning is available from The National Locksmith.

Steven Jacobson
Wisconsin

This Technitip concerns a bypass method that I used recently, to open a locked fire file that had a Medeco

cylinder. Because of the drill and pick resistance of the cylinder, I highly recommend bypassing the lock and replacing it. The lock in this case is located on the right side of the top drawer. To open the fire file, remove the sheet metal cap. It is secured by screws at the rear of the cabinet, so the cabinet will most likely need to be slid away from the wall. With the cap removed, drill a hole down into the fireproof material with a standard 3/4" "spade bit," to gain access to the top of the bolt bar. The material is extremely easy to drill. The hole should be 3-1/4" from the front of the cabinet, and 1-5/8" in from the right side. (These dimensions were correct for the cabinet I opened, but you should be familiar with the cabinet you are being asked to open before you drill. Find another cabinet in the office, like the one that is locked, and remove the top drawer to find the exact location of the drawer locking bar. Observe also, whether it locks the drawers by being lifted up or pushed down.)

The hole gave perfect access to the locking bar. The bar was pushed down, using a long punch and hammer, to free the top drawer. With

the drawer open, a 3/16" access hole was drilled inside the drawer to depress the spring latch bolt and release the cylinder. The bolt for the Medeco cylinder is located on the left side of the cylinder. The spring latch was depressed a second time, with the lock in the extended position, to release it from the drawer. Repair was simple. Insert a new lock cylinder into the drawer and check it for proper operation, using the working keys. The bolt bar was not damaged, but the insulation material above it should be replaced. Put a masking tape patch on the inside of the cabinet, and fill the hole from the top, with fire proof material or plaster of Paris. Install the cabinet cap, and screws to complete the job.

There are a number of cabinets with locks that are, for the most part, not economical to repair and impossible to service. Bypass them and replace them with new.

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Newsmakers

New Products and Industry News

Fort Lock's 'Put America First' Promotion

Fort Lock Corp. has announced their new Put America First, "Buy the Best. Ride the Best" promotion. The first prize Harley-Davidson XLH 1200Sportster Anniversary Edition motorcycle has a \$7,400 value. Plus \$15,000 worth of Fort Lock products will also be awarded. The awards will be drawn at ALOA.

For every \$10 you spend purchasing Fort Lock Multi-Function locks between January 1 and June 30, 1993, you will be awarded one point. For each point earned, a ticket with your name on it will be placed in a drum. Prize winners will be drawn from the drum.

A calendar poster commemorating the promotion is available free.



For FREE Information
Circle 353 on Rapid Reply

Prolox Computer Lock By Scan Global

Scan Global, a Trenton based international trading company, is the exclusive U.S. distributor for Prolox® security systems. Designed in Sweden and patent protected, Prolox reduces the theft rate of office equipment such as PCs, laptop and notebook computers, faxes, printers, video cameras, video players, telephone equipment, etc. So effective as a crime deterrent, over 300,000 Prolox systems have been installed in Europe in three years. Prolox's effectiveness in Europe has resulted in insurance companies lowering their premiums at those companies where Prolox is installed.



For FREE Information
Circle 354 on Rapid Reply

Detex Introduces The Fire-Safe Key Vault

Detex announces the introduction of the Fire-Safe™ in-the-door key vault. Recently released for sale, the Fire-Safe will provide a significant advance in the control of keys to multiple buildings.

Engineered for fire service, guard tour companies, police, and maintenance companies, a single Fire-Safe master key will provide quick access to all Fire-Safe key vaults in a specific locale or multiple buildings.

Machined from a solid bar of stainless steel, the Fire-Safe will flush-mount on any door up to three inches thick. The Fire-Safe features a Medeco cylinder.

The Fire-Safe provides a lower profile and lower installation cost than traditional key vaults. Flush-mounted, it offers the appearance of a lock, not that of a key vault.



For FREE Information
Circle 355 on Rapid Reply

Continued on page 21

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Continued from page 18

MRL's Crypto Code Access Control

MRL continually introduces low cost products for the stand-alone access control market. The CC-4500 offers stand-alone card and/or keypad access for up to four doors with many of the features found only in computer based systems. With a code capacity of 2000 users and a history buffer of 1000 events, the CC-4500 can handle most small to medium size installations at a very affordable price.



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GTO's Bulldog Automatic Gate Lock

The Bulldog, manufactured by GTO, Inc. is a new, low cost, automatic gate lock that provides controlled access with excellent security for personal "walk-through" gates in pool and tennis enclosures or any fenced areas needing access control. The Bulldog is easily surface mounted on wood, chain link, or metal gates, with no drilling or welding required in most installations.



For FREE Information
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Pinning Chart Software By Blackhawk Products

Blackhawk products announces its newest software, PIC: Pin chart for Interchangeable Cores. With this program, you just type in the change key and it prints the pinning chart for you, either on the screen or on your printer. If you have a list of change keys in a file, it can handle them as easily as if there was only one.

PIC is for Best/Falcon type interchangeable cores. It covers five, six and seven pin lengths. It works with the A2, A3, and A4 pinning systems. You can set your own control and master key, and it will store them for the next time you run the program.

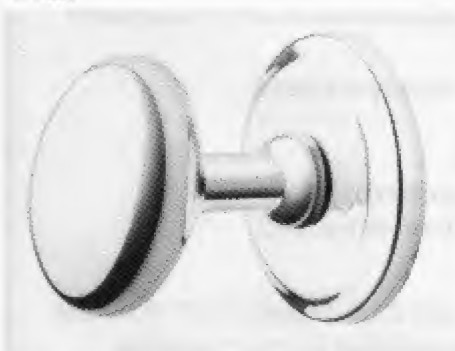
If you have several systems, you can set up files for each to store the individual control and master keys. The software is for the IBM family of computers.

**For FREE Information
Circle 359 on Rapid Reply**

Master Lock's Opulent Olivia™

The elliptical elegance of the Master Lock Olivia knobset adds a graceful punctuation to any room. Part of Master Lock's stylish Designer Series collection, the Olivia knob softens the stark angles of an entrance way. It is available in bright brass, antique brass and bright chrome finishes.

Forged from seamless solid brass, the Olivia is hand-buffed to a brilliant luster.

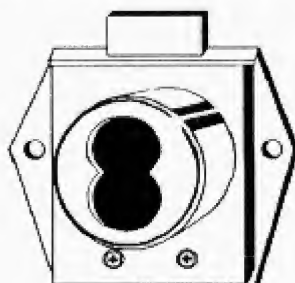


All Designer Series products carry a full lifetime warranty and are designed for easy installation in 2-1/8" crossbores and 15/16" edgebores. Deadbolts and entrance handles may be supplied with a "DC" keyway that is compatible with Schlage, Baldwin, Dexter and other C-type keyways. Other keying combinations are available.

**For FREE Information
Circle 360 on Rapid Reply**

Olympus IC Cabinet Lock Bodies

Olympus Lock, a Seattle based manufacturer of commercial cabinet locks, announced today the arrival of their interchangeable core lock bodies that accept Best, Arrow, Falcon or KSP cores. These products are now available for immediate shipment. The interchangeable core products offered by Olympus Lock include: The 725 Series (cabinet door/drawer), 720 Series (cam lock), 721 Series (cabinet door/drawer), 722S (sliding door lock), and 728MBL (mail box lock).



These products are aggressively priced to meet customer, retail, and distribution needs. All Olympus products are available through standard cabinet lock distribution channels.

**For FREE Information
Circle 361 on Rapid Reply**

Entracomp 28SA By Secura Key

Secura Key announces the Entracomp 28SA.

The Entracomp 28SA is a self-contained, single passageway, card access control unit that allows up to 65,000 individual users. Up to 15 user time zones are available. Each of these time zones is programmable in 1/2 hour increments on a seven day plus holiday week schedule. 32 holidays may be programmed. Each time zone may be limited with a specific start and/or stop dates if needed. Up to 5800 date and time stamped transactions are stored by the unit in non-volatile memory for later examination.



The system provides for up to 16,000 limited use cards. Cards may be restricted to a specific number of uses, or can be used for a specific number of days. These restrictions may also be subject to time zone and start and stop date requirements.

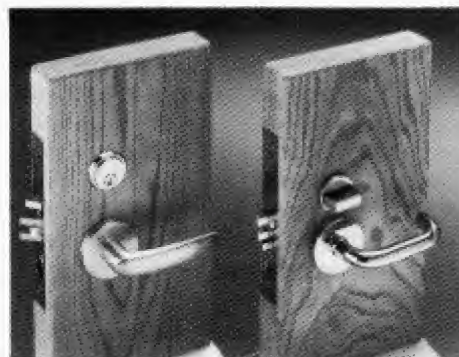
Either hard or soft timed antipassback is also available. Individual cards may be programmed to be exempt from passback.

**For FREE Information
Circle 362 on Rapid Reply**

Two New Lever Trim Styles From PDQ Industries

PDQ Industries, inc. announces the availability of two new lever trim styles for the company's ML Series mortise locks. Known as the ST "Chicago" lever and the LT "Tubular" lever, these two levers complete the company's line of locks that meet all applicable requirements of the Americans with Disabilities Act.

The LT lever is constructed of hollow brass, while the ST "Chicago" lever is cast brass. Both levers are available in a variety of attractive architectural finishes.



Title III of the Americans with Disabilities Act of 1990 provides that door hardware that does not require tight grasping, tight pinching, or twisting of the wrist to operate are acceptable styles. Lever locks from PDQ Industries comply with these requirements.

**For FREE Information
Circle 363 on Rapid Reply**

Test Article #4
**General
Security**

To be tested in March 1993 issue.
Details in insert in front of issue.

Sargent Mortise Lock

"This article is part of our Security Certificate Program. In a future issue, the content will be tested."

Next in our series on mortise locks is Sargent. Currently, Sargent carries the 7700 line for use with knob trim and the 8100 line for use with lever trim. These models have a one piece 5/8" throw latch with a nylon anti-friction insert as standard. An 18-7700 and 18-8100 series is also available and includes a two piece mechanical anti-friction 3/4" latch for double fire door applications.

All Sargent mortise locks prior to March 1, 1976 had cast iron housings. After this time all mortise housings use a stamped steel case. Currently, there are no parts available for the older cast units. Changes to the steel case units have been few and parts are

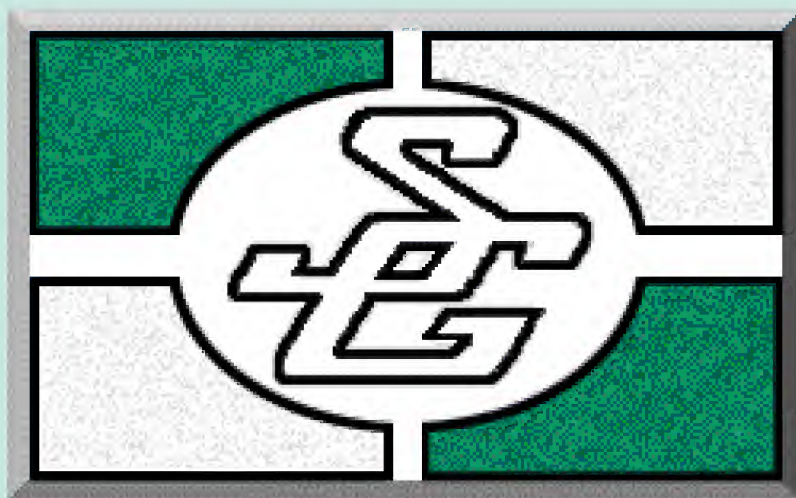
readily available.

Some changes that will affect the locksmith include a change in the spindle dimension for the knob trim. Older steel case units use a single dimension split spindle for both the door and lever trim. Later knob trim versions use a split spindle with an enlarged outside spindle and hub spindle hole. This was done to prevent access to the inside hub by forcibly driving the spindle through the hubs.

The spindle dimension change affected the knob trim only, however. The lever spindle remained the same until April 1990, when the interior half of the spindle was changed from a

none threaded shaft to a threaded shaft with a lever adapter. In August 1992 Sargent introduced a new line of trim that uses separate interior/exterior spindles of the same dimension used on both the knob and lever trim.

The reason for this change is to make mounting the trim easier. The previous version used self-aligning hardware and trim that made installation a bit tricky for the apprentice or novice locksmith. With this version, threaded case and trim aligners were attached to the case at the hubs and then secured to the door. When installed correctly this trim would align and secure the lock in the



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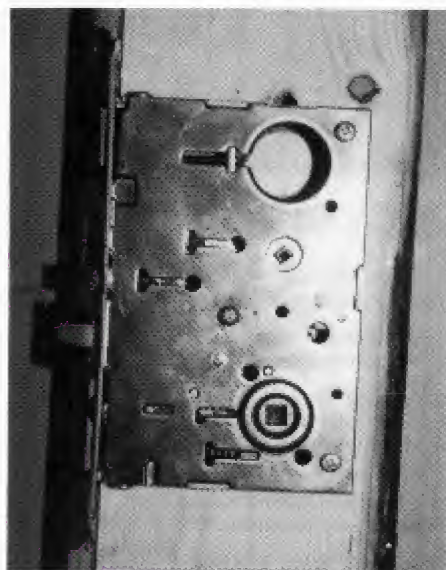
door properly, preventing the unit from unwanted rocking during operation, thus preventing unnecessary wear problems.

The new version trim attaches to the door using mounting posts. These posts are attached to the exterior trim and pass through the lock case and door. An adapter plate is screwed onto these posts on the backside of the door, holding the trim in place. The threading for the older version alignment trim has been eliminated from the case and a solid hub spacer has been added.

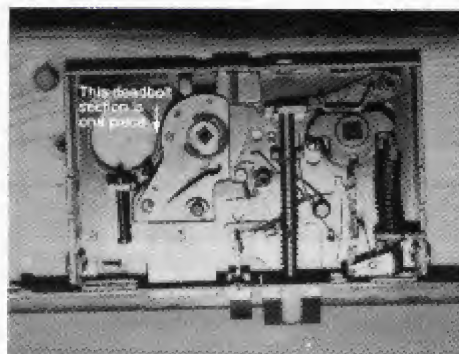
When working on these units the main difference you will find between the 7700 and 8100 is the presence of a large lever spring, a different hub, and a hub stop pin found in the bottom of the case in the 8100. The spring is used to help support the extra torque incurred with the use of levers.

Help in servicing Sargent mortise locks can be obtained from a local Sargent distributor.

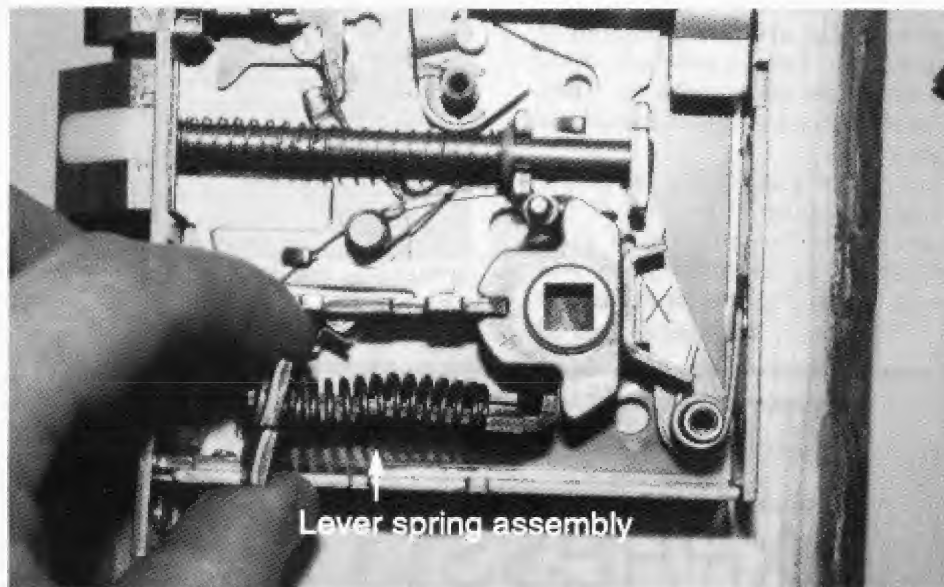
For this article we changed the hand of an entrance function 8100 series lock. This unit included a deadbolt and a toggle switch. Before we started we adapted the mortise assembly block to fit the hubs of the Sargent unit. Our unit was the newest version that uses separate interior/exterior spindles. A solid hub spacer prevents a spindle from passing all the way through the hubs so we cut down the spindle allowing the unit to sit flat on the block. While the lock will not "explode" if the assembly block is not used, it does help to stabilize the



1. Using a mortise assembly block kept many of the parts from shifting, making disassembly and reassembly much easier.



2. The Sargent mortise lock is much easier to service than it appears.



3. Removing the lever spring assembly.



4. Removing the latch lever spring.

components through disassembly and reassembly. (See photograph 1.)

After placing the unit on our block, removing three screws allowed the cover to be taken off the unit. Lift the cover from the back of the lock, opposite the faceplate. Small tangs on the cover project underneath the faceplate and prevent lifting from that side.

Removing the cover reveals the unique makeup of the Sargent unit. The deadbolt unit at the top, while made of many components, is actually one part, giving the Sargent lock an almost modular makeup. Should any problems arise in this area, simply remove and replace this one piece. (See photograph 2.)

To change the handing remove all

the tension from the hubs. Carefully lift the lever spring assembly (found on the 8100 only) out and away from the case (see photograph 3). Then remove the latch lever spring (see photograph 4). The hubs will now be free of tension and can be removed from the case. Notice how the toggle button is pushed so that the button tail (slide stop) is pushed into the locking hub preventing it from turning.

As seen in photograph five there are two different hubs. The larger hub with the slot is the locking hub, and goes to the locking side of the case. The other hub does not lock. Also notice the solid hub spacer (between the two hubs) new to this version.

After removing the hubs, remove the latch (see photograph 6).

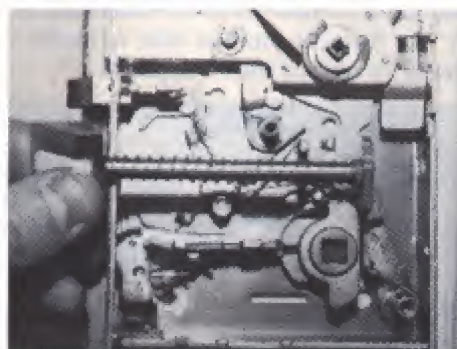
With the latch removed, carefully remove the guard bolt (deadlatch) spring from the guard bolt plate assembly (see photograph 7). Then remove the guard bolt (deadlatch) (see photograph 8).

Replace the guard bolt in the proper direction. Make sure that it fits properly into the guard bolt plate assembly. Then return the guard bolt spring to its original location (see

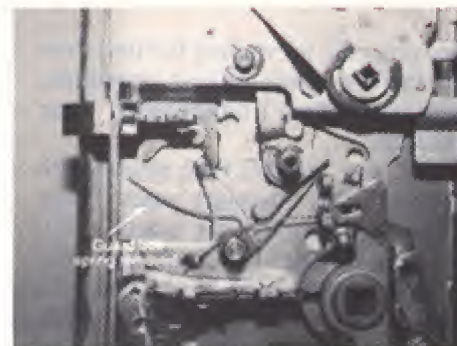
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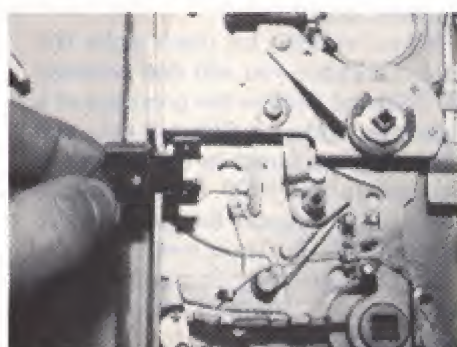
5. The hub section consists of (left to right) the locking hub, hub spacer, and a non-locking hub.



6. Remove the latch.



7. Remove the guard bolt (deadlatch) spring from the guard bolt plate assembly.



8. Remove the guard bolt (deadlatch). Be careful, as the other components have a tendency to move around.



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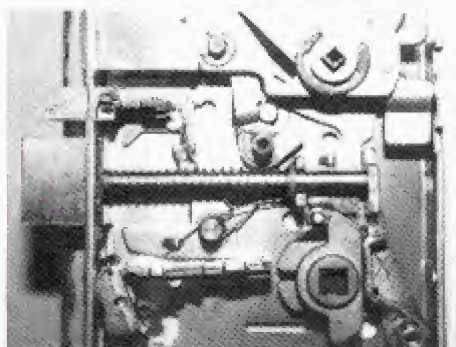
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Continued from page 28



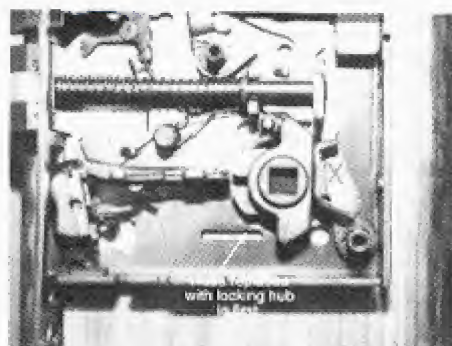
9. Replace the guard bolt in the proper position, then return the guard bolt spring to its original position.



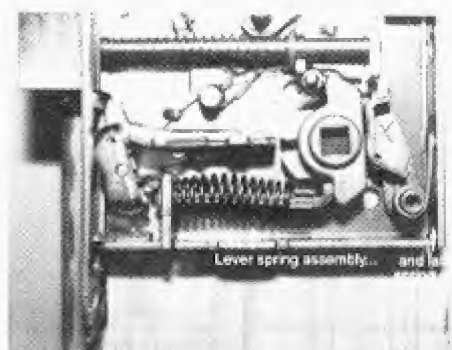
10. Replace the latch.

photograph 9). Be careful as you move through these procedures, the parts had a tendency to move around.

With the guard bolt in place,



11. Replace the hub section, making sure the locking hub is to the correct side of the case!



12. Replacing the lever spring assembly and the latch lever spring are the final parts before putting on the cover.

replace the latch. Make sure that the spring and nylon bushing are in front of the latch slide saddle and that the end is properly seated behind the latch lever assembly. (See photograph 10.)

Next replace the hubs and hub spacer. Make sure you have the locking hub on the side of the door you wish to lock! (See photograph 11.)

Finally, replace the latch lever spring and the lever spring assembly (see photograph 12). When reinstalling the lever spring we found it easiest to place the foot of the assembly against the hub first, and then move the front end into position in the case.

Replacing the cover demands a little attention. After sliding the tangs of the cover under the faceplate, gently lower the cover. Using a pick, scratch awl or small screw driver, align the different components that are restricting the cover from fully closing. We found the cylinder clamp, dead bolt assembly, button tail (slide stop), hubs and lever spring assembly needed the most coaxing to close the cover. Not seen by these photographs is a lever or arm that is attached to the inside of the cover. The end of this arm needs to fit into a space provided on the button tail. §

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Test Article #5
Automotive
Security

To be tested in March 1993 issue.
Details in insert in front of issue.

Servicing Honda

"This article is part of our Security Certificate Program. In a future issue, the content will be tested."

In writing on Honda service, we will not spend any great deal of time on a specific vehicle. Instead we will approach the different types of service (e.g. openings key generation, lock repair, etc.) from a broader perspective. Doing so, will allow you to approach any Honda with a greater degree of confidence without having to memorize specifics for each particular model. The following information covers model years 1986 (roughly) to 1993.

For Hondas in these years, you will find one of two key code series. The 3001 — 4481 series started on the 1982 Prelude and by 1984 included all Honda models. This series started with the X128 (Taylor number) keyblank, but is now superseded by the X181. The difference between the two blanks is the length of the blade. The X181 blank can be used for all of the vehicles using this code series.

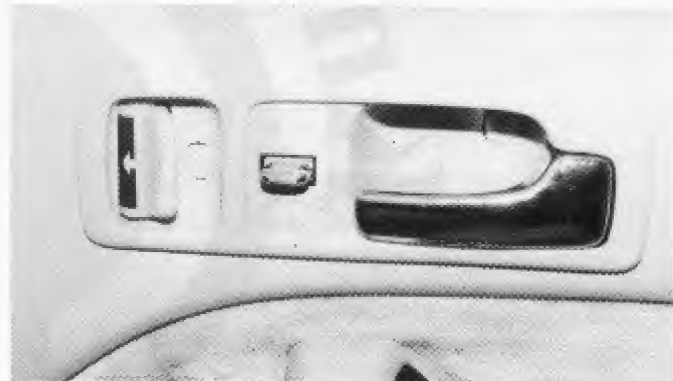
The other code series used is the 5001 — 8442, using the X182 keyblank. This blank supersedes all previous blanks for that series. Introduced on the 1988 CRX, this series now shares usage with the 3001 — 4481 series. A specification chart for both series will follow this article.

It is very important that the latest version keyblank be used. Modifications of the ignition cylinder made the shorter keyblank versions obsolete. Using the earlier shorter versions in later model vehicles will cause the ignition switch to jamb in the "Start" position and burn out the starter.

The first part of any auto service is being able to open the vehicle. Honda has been very gracious in this respect. From 1986 to present they have used various designs for the lock buttons and latch handles. The two most common are the vertical (up and down) buttons (*see photograph 1*) and the horizontal (front and back) paddles (*photograph 2 and 3*). Both styles can be accompanied by electric locks. The vertical buttons appear in four door models and the

horizontal paddles in two door models. While the appearance of the buttons and paddles vary, the working linkage inside the door is very similar not only from model to model, but year to year as well.

We found this to be of advantage. Using an HPC CO39



2. This is one of many horizontal lock paddles common to the Honda two door.



3. The 1992 Prelude sports this paddle, but the lock linkage is still pretty much the same.



1. This vertical lock button is common to the Honda 4-door.

slidelock tool (*see photograph 4*) and the Jiffy Super Light we opened all the 1992 and 1991 models, as well as the 1986, 1988, 1991 Accord, the 1989 and 1990 Prelude and a 1987 Civic (we would have tried more but there weren't any). It seems opening the Honda is relatively easy.

For the vertical button style, wedge the door panel away from the window, insert a light if you wish. The button rod will be fully exposed and in line with the button. Insert the slidelock tool into the door and hook the lock button rod. Twist the tool to bind the rod, then tilt it up to lift the button. Voila — you're in.

To open the horizontal paddle style locks (*see photograph 5*), wedge the window and insert the light. At the latch side, two horizontal rods will be visible. The one



4. Accompanied by the Jiffy Super Light, we were able to open all Honda models with the HPC Slidelock tool.



5. Using the Jiffy Super Light and the CO39 Slidelock tool to open the 1993 Prelude.

closest to the outside of the door is usually the lock rod. Insert the slidelock tool and hook the rod. Twist to bind the rod and slide towards the front of the car. Voila — you're in.

On the Del Sol you will find that there is a cable and a rod going to the latch. The cable comes from the door handle to release the latch. The rod, hidden just below the cable, goes to the lock paddle. Insert the slidelock tool, bind and move the rod towards the front of the car. Voila — you're in.

If you think opening these cars is easy, generating a key is not much different. In general, all locks will have the key



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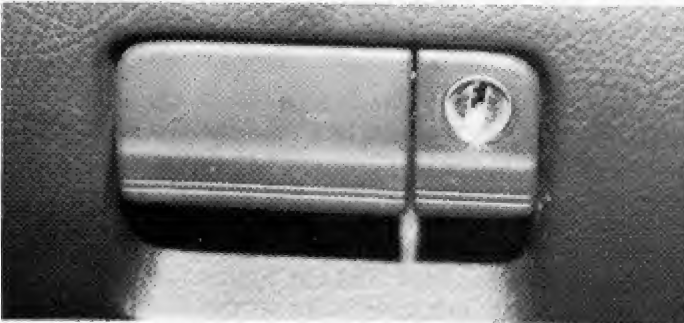
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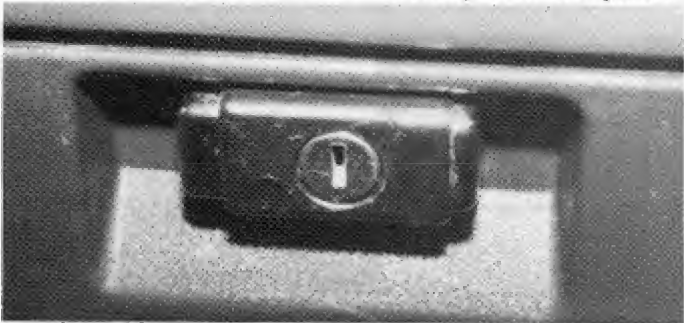
code stamped on the housing. On some of the locks the code is prefaced by three or four digits. Disregard these numbers and use only the last four digits as the code. Years and models vary when codes were stamped on the ignition. On many years the number is stamped on the housing near the column clamp. Again, this is a series of letters and numbers, the last four of which is the key code. On the 1993 we found the codes stamped on the ignition cylinder, and not accessible until the cylinder is removed. Being that I like doing things the easy way, let's go through a sequence for finding a code.

After opening the vehicle start with the glovebox lock. There are three typical styles that you may encounter. Two of these are part of the door, the other one is just above the door in the dash. Of the two in the door styles, one will be have a paddle handle release and be held to the door with two screws (see photograph 6). The other one will have horizontal squeeze buttons and is held to the door with one



6. This paddle handle glovebox lock is on the glovebox door and is held in with two screws.

screw (see photograph 7). Remove the screws, lift the lock from the door and the code will be stamped on the cylinder



7. This squeeze button glovebox lock is also on the glovebox door and is held in with one screw.

housing (see photograph 8).

The dash mounted lock is held into the dash by two

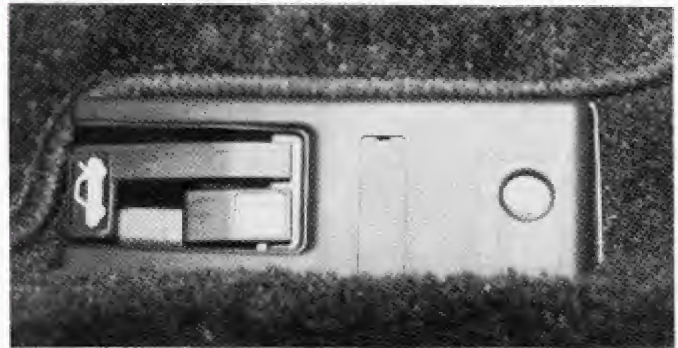


8. The 1993 Accord uses the paddle handle style glovebox lock. The code can be found on the lock casing.

screws that are easily accessible from inside the glovebox. Loosen the screws enough to slide the lock back out of the dash. The code is stamped on the cylinder housing.

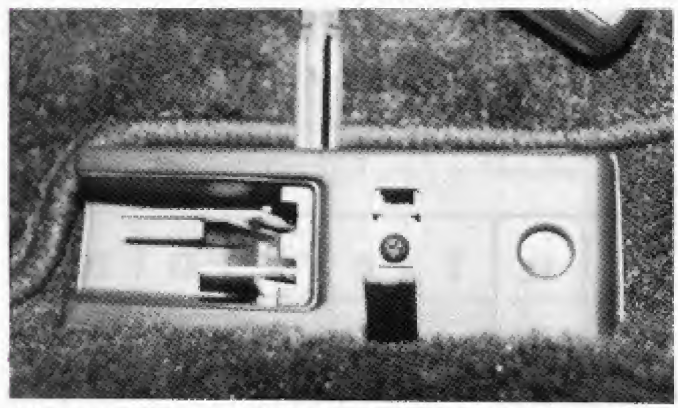
Not all models will have glovebox locks, however. In fact, the only 1993 models we found with glovebox locks were the Accords. Before for this time, most models except the Civic and/or CRX had glovebox locks.

If a glovebox lock is not found, check for an interior trunk/gas cap release lever lock. This will be down on the floor on the left side of the driver's seat (see photograph 9). To get to the lock, slide the plastic levers off of their metal arms. Remove the cover screw found beneath a small



9. The trunk/gas cap release lever lock is an easy method of obtaining a key code.

plastic lid on top of the cover (see photograph 10). Pull the cover off. Below you will find the lock and the locking mechanism. We have found two versions for retaining this lock. One, as captured in the photographs, is simply press



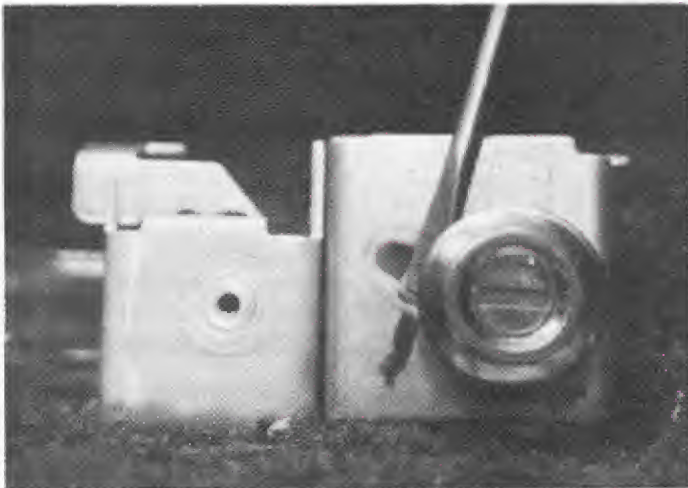
10. Removing a small plastic lid reveals the covers retaining screw. Remove the screw and the two plastic levers. The levers slide forward off of the the metal armatures.

fitted into a plastic sleeve or grommet. Gently prying up on the lock will remove it (see photograph 11). The other version uses a standard horseshoe retaining clip. Remove the clip and the lock will slide up and out.

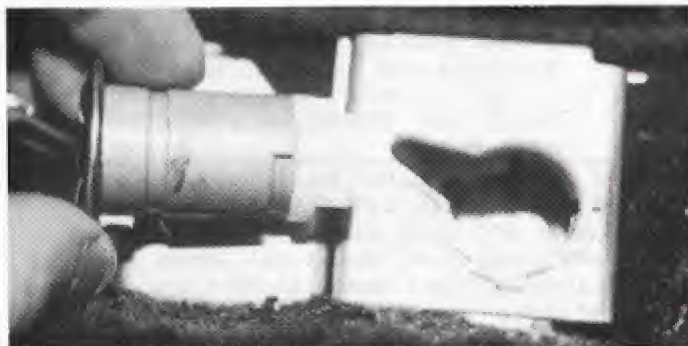
The code will stamped on the side (see photograph 12).

If the vehicle doesn't have a glovebox or hatch release lock, open the trunk using the release. On many Hondas the trunk lock can be removed after unscrewing a 10 mm bolt. Or, if you have a Civic, a lock can often be found in a storage compartment directly behind the rear seats.

If all these fail, and they usually don't, it's time to tear down a passenger door panel and retrieve a door lock (see photograph 13 and 14). The only exception to finding a key code on this lock are on the Accord and Prelude models sporting the lock in the handle with a concave facecap. On



11. This lock was held in via plastic grommet. Gentle prying will allow you to remove it.



12. The key code is stamped on the side of this lock.



13. When all else fails, tear down a passenger door panel. This one belongs to a 1993 Accord. Can you tell whether it is a two door or a four door?



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these models the handle actually serves as the lock's shell and the plug is inserted from the front.

If a code is not intelligible or cannot be found on the door lock, the lock can be disassembled and a key made. For the 3001 — 4481 series, the door lock will usually have the first six of eight cuts. There are three depths and the wafers in the lock are not stamped with a number. Insert a key and read the wafers. Then progression the last two cuts through the ignition.

For the 5001 — 8442 series, the door lock will usually have the first seven of eight cuts (if you have a trunk lock, that will have the last seven of eight cuts). There are six depths and these are stamped on the wafers in the lock. Carefully remove the wafers and mark down the depth of the cut for that space. The last cut can be progressed through the ignition, trunk or glovebox.

Next month we will take a look at removing ignitions and door locks, and how to rekey or repair the various style locks Honda offers. §



14. While hard to see, a small wire clip is used to hold the lock into the handle.

1984 -- 1993 Honda

Code Series: 3001 -- 4481

Key blank: Taylor X181, Silca HON53(P), Jet HD90(PH), Curtis HD91, Ilco HD90

Stop: Shoulder

Spacing: 1--.098, 2--.197, 3--.295, 4--.394, 5--.492, 6--.591, 7--.689, 8--.787

Depths: 1--.276, 2--.244, 3--.213

CM1200: CC# XF73, CW1011 cutter

Framon: Starting cut -- .098, spacing block --.098 or SB#3, MC8445 cutter

Curtis: HD9 cam, HD9A carriage, W45 cutter

Code Series: 5001 -- 8442

Key blank: Taylor X182, Silca HON45(P)R, Jet HD91(PH), Curtis HD90, Ilco HD91

Stop: Shoulder

Spacing: 1--.108, 2--.193, 3--.278, 4--.313, 5--.447, 6--.512, 7--.617, 8--.701

Depths: 1--.307, 2--.282, 3--.257, 4--.232, 5--.206, 6--.181

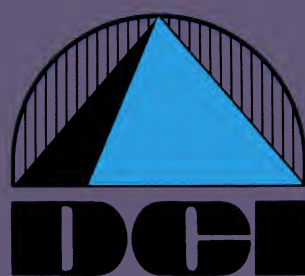
CM1200: Disregard above spacing and depth specifications and use: CC# XF74, CW47MC cutter

Framon: Starting cut -- .108, spacing block --.845 or SB#4

Curtis: HD12X cam, HD12AX carriage, W47 cutter

Most Hondas will have either an exposed horizontal or vertical linkage rod that can be opened using a simple HPC CO39 slidelock tool.

Key codes are stamped on almost all locks, with some exceptions. Easiest means to obtain a code in order of ease is glovebox lock, interior trunk release lever lock, storage compartment lock, trunk lock, door lock, and in some cases the ignition housing.



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Test Article #6
**Electronic
Security**

To be tested in March 1993 issue.
Details in Insert in front of issue.

Access Control

"This article is part of our Security Certificate Program. In a future issue, the content will be tested."

The phone rings, you pick it up, and you hear:

"Hi, this is Atilla Hun from Ripemoff insurance, can I speak to the owner?"

With slight agitation, your mind rifles through all the possible sales call responses.

"He's not available now, can I take a message?" You say, just barely keeping yourself from hanging up.

"How about the office manager," the voice persists.

"They're not here either, thank you, have a nice day." You hang up, ending the typical question/answer volley.

This little example is typical of more than just a call from a salesman. It is also a perfect model of how an access control system works. To understand it a little more, let's break the phone call scenario into different identifiable components.

The first part is the ear. From the phone our ears received information and put it into a form acceptable for interpretation by the brain.

The brain, the second part, receiving signals from the ear, interprets the information, and, based on experience and knowledge, formulates a response. This response is sent to the appropriate parts of the body and turned into an action, the third part of the system, by our voice and hanging up.

As characterized through this illustration, the three components included: a sensing unit (the ear) that received outside information and made it compatible to the system. A control panel (the brain) that took the information and, based upon antecedent information, made a decision for action. And components that were capable of carrying out the action (the voice box and hands). And, while not nearly as complicated as the human, an access control system can be divided into these three components: sensing, deciding, action. (See illustration 1.)

Yet, while all access control systems

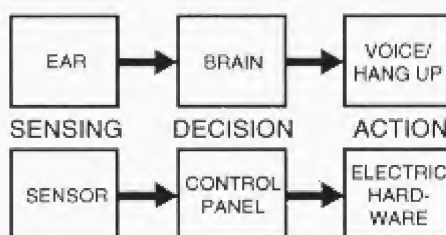


Illustration 1
All access control systems will have these three components.

include all these components, how they are incorporated into a particular system will vary. Many simpler systems embody two or more of the components in a single unit. IEI and Corby 6000 series keypads as well as PCSC's Eclipse and Detex's Dentco II combination keypad/card reader systems keep the sensor (keypad and/or card reader) and the control

panel (microprocessors) within the same unit.

Almost all of these units are single door or stand alone units offering a very limited number of functions and options for the end user (there are some exceptions) and programming of the user function/options are done at the unit, usually through the sensor. (See illustration 2.)

Other and more advanced systems keep the three components separate. While many stand alone systems are built this way, usually you will find the multi-door systems in this category. Separating the components allows manufacturers to create a system that is much more versatile and less expensive to produce. More than one door can be covered by a single control panel, for instance. A choice of sensor types offers the purchaser more versatility in application. Separating the control panel

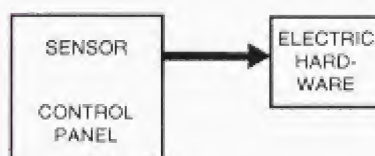


Illustration 2
This IEI keypad is a simple yet effective single door system.



Illustration 3
The Corby System 4 is a multi-door system that can accept a wide range of sensor technologies



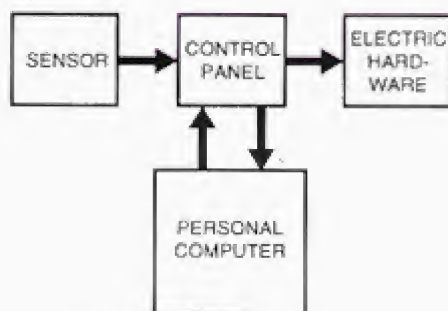


Illustration 4

The PC based system, like this one from Cardkey, offers the highest degree of access control options.



from the sensor protects the system's integrity by preventing easy violation or compromise.

These systems generally offer a wider range of user functions and options. Programming will vary for this group. Many, especially the simpler, stand alone units, are programmed from the sensor. The more advanced systems require programming from a keypad or other input device at the control panel. (See illustration 3.)

The final group are the PC based systems. The main difference in this category is that the whole system is

operated through a computer. Because of the versatility of the computer, this type of access control offers the widest range of functions and options for multi-door use (see illustration 4.). User functions and options will be covered at a later date. For now, we'll cover some brief information on each of the three components. A more detailed rendering of each will follow in future issues.

It should be mentioned before we go on, that there is another genre of access control emerging. These particular units are stand alones and all the components are under one roof. Yet,

they are able to offer much of the versatility and functionality that are part of the more advanced and PC driven systems. OSI's Omnilock and Alarm Lock's Trilogy are part of this group and are examples of access control's quickly changing pace.

Sensors: With technology moving so quickly, it is hard to keep up with the different types of sensing units available. In fact, of all the components in an access control system that can be modified, change to the sensor is by far the most prone, the most common and the most dramatic.



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While separating sensors into classifications is as clear as mud, we can probably get away by dividing them on the basis of the type of information needed and how the information is stored. General classifications may include switches, registers, and biometric.

Switches include not only the common key operated types we are all familiar with, but also keypads. A keypad, in its basic form, and there are exceptions, is nothing more than a bunch of small switches. As a button is pushed, that switch is momentarily closed and recorded within the control panel. When the right sequence of switches is closed, the system is activated. The information (the correct sequence of depressed switches) needed is displayed to the user as a combination or password, and the mean of storing or maintaining the information is the user's memory.

For the purpose of these articles, the register group refers to information that is stored or compiled, like a register, onto a separate material or device that is compatible with the sensors in the system. The most common of these is the card. And, of course, there are a number of technologies that use a card: e.g. barium ferrite, Wiegand, magnetic swipe, proximity. Also in this category are newer technologies that rely on microprocessors and memory chips: e.g. encoded keys, canisters or buttons. Whatever the technology, the information is stored on a card or small plastic or metal container and carried by the user.

Biometric sensors read a person's physical characteristics or mannerisms. Retina prints, finger prints and voice prints are some examples of this type technology. Unlike other technologies, the information is an integral part of the user, making it hard, if not impossible, to duplicate, alter or lose.

Control Panels. Control panels are not only hold the brains of the system, but also the heart. It's here that the system operations or functions are determined. In older less sophisticated systems this was accomplished by jumper wires and/or a series of dip switches. Today, most systems use microprocessors, which are more compact and more dependable.

The different functions and options that a system offers are determined by the software or the programming of the microprocessor. Knowing exactly what a customer wants to accomplish is

critical in choosing the system you need, and is determined by the available user functions and options of a system.

Smaller systems usually offer the least functionality. A small number of users and limited timing options are all most of these offer. The more sophisticated the software, the more functions that are available. A more advanced system may offer a very large number of individual users, many timing options and timing windows, audit trail, alarm points, the ability to integrate with other building systems such as alarm, CCTV, fire alarms or

HVAC, and may even accommodate several different types of sensor technologies.

Electric Locks/Strikes. As locksmiths, this may be the easiest part of the access control panorama. We're familiar with what to look for in hardware: e.g. door and frame operation, access or egress requirements, door and frame conditions and specifications. Adding electronics to this particular part of our life will only require minor adjustment. Becoming familiar with all the different

Continued on page 80



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New & Profitable Ideas

Alarm Lock's

Attractive Keypad

Alarm Lock's Eagle 4700RBL decorator-style keypad is compatible with both Eagle 4700 Plus and Eagle 4700DL control/communicators. This keypad offers 3 keypad-activated "F", "A", "P" panic keys for fire, auxiliary/emergency, and police (programmable) with a "child-proof" bar; a unique decor-reflective accent lens; and, an optional keypad lens library which includes 15 custom color lenses, plus one far-sighted lens with extra large lettering.



Circle 417 on Rapid Reply

ACSI Electrified Lock Sets

Series 1500 U.L. listed lock modifications from Architectural Control Systems, Inc., enable distributors to minimize modification costs to cylindrical locks, mortise locks and exit devices.

ACSI modifications include: Fail safe, fail secure control, electric latch retraction, request to exit switching, solenoid trim control, and monitoring capabilities.



Circle 418 on Rapid Reply

Bonafide's Counter Drop System

Bonafide Factory Products offers the Perma-Vault counter drop cash protection system that makes an affordable, safe and convenient depository for interim storage of cash and checks. Limiting exposed cash helps prevent: external loss, internal loss, cash variance and register stripping.

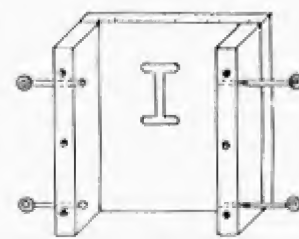
The Counter Drop features a chute opening for easy insertion of cash and checks without unlocking.



Circle 419 on Rapid Reply

C & M Tool's Cincher Template

The Cincher Template is a lightweight, wooden framed, damage-proof guide to quickly and easily install the Cincher door fastener. In the figure below, note the "I" in the template. The "I" acts as a guide for you to follow. You can simply affix the template to the frame by using the adjusting screws, place the solid carbide end-mill (in a standard router) and follow the "I". Or, you can modify the width of the "I" to suit your particular frame.



Circle 420 on Rapid Reply

DADCO Magnetic Exit Alarms

DADCO Exit Alarms provide the protection of a guard at every door, while complying with local safety, fire and building codes.

Only authorized key-carrying personnel can bypass the alarms at will. In the event of an emergency, immediate egress is available, due to the fact that the door is not locked. The very presence of a DADCO Alarm and Warning Sign discourages the misuse of the exit. Unauthorized opening sounds a shrill alarm.



Circle 421 on Rapid Reply

Darex Adds Deluxe Sharpener

The Darex Corporation has added a new product to their sharpener line. The M-5 Deluxe drill sharpener is an upgrade of their best selling drill sharpener, the M-5. Darex's M-5 Deluxe can sharpen virtually any drill point from 1/16" - 3/4". It comes with lamp, pedestal, 115V 1/3HP motor, diamond wheel, protective cover and demonstration video.

The diamond wheel gives improved performance, longevity, cleanliness and requires no dressing and less maintenance.



Circle 422 on Rapid Reply

Deerfield Patio Door Lock

A sliding door is very easy to force open with only the latch that the door manufacturer provides.

By installing the Deerfield Patio Door Lock on the bottom inside rails (the strongest part of the door) the sliding panels are held against the side jams and in the channel to resist lifting the door out of the opening or prying the latch off.

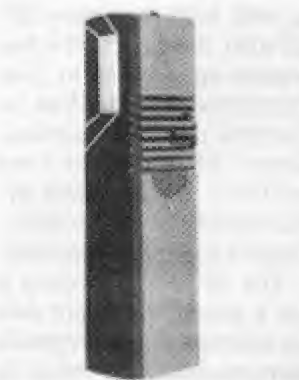
The lock is based on sheering of the pin on the arm: the more pressure exerted on the door, the tighter the lock grabs the door.



Circle 423 on Rapid Reply

Detec Adds DA4 To Line

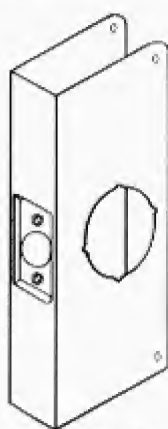
Detec Security System, Inc. has added to their line of door announcers, the "Door Attendant" model (DA4) which is a highly versatile passive infrared (PIR) detector that senses the infrared energy emitted by a person or object crossing through its field of view. The DA4 then transmits a wireless signal to a remote receiver over 100' away, that emits a volume controlled, pleasant electronic chirp sound.



Circle 424 on Rapid Reply

Don-Jo Expands Wrap-Around 's

Don-Jo Mfg. has expanded its classic wrap-around category. Three new wrap-arounds have just been added to accommodate extra thick doors. The CW-200 is designed to fit a 2" thick door, the CW-214 is designed to fit a 2-1/4" thick door and the CW-212 will fit a 2-1/2" thick door. All three designs are 4-1/4" x 9" in size and will fit a 2-3/4" back set.



Circle 425 on Rapid Reply

DoorKing's Magnetic Lock

DoorKing's Model 1215 magnetic lock has risen in popularity because the input voltage can be 12 or 24 volts, AC or DC, which eliminates the need for an external rectifier. The device is both vandal and weather resistant making it ideal for both indoor and outdoor use.

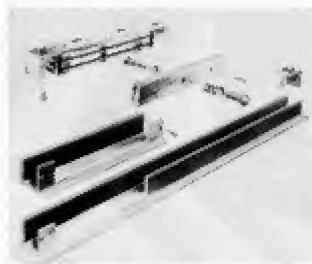
The Model 1215 can be mounted from the back, top or bottom, and requires only a few tools to install which makes it ideal for mounting on most doors or gates.



Circle 426 on Rapid Reply

Dortronics' Tamper Guard Covers

Dortronics now offers the 1100G Series one-piece housing covers to provide tamper protection for its 1106, 1110, 1115, 1120 and 1130 Series electromagnetic locking devices for surface mounting on outswinging doors. These unique extruded aluminum housing covers feature a tamper guard that projects out from the cover below the armature and extends the full length of the housing, thereby shielding the shear line between the electromagnet and armature against attempts to pry them apart.



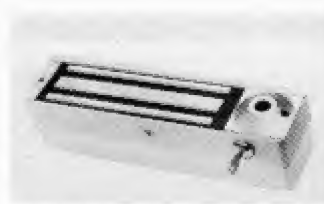
Circle 427 on Rapid Reply

DynaLock's Delayed Egress

DynaLock Corp. introduces its technically advanced delayed egress locking system Series #3101.

DynaLock has combined its proven #3000 Series, 1500 lbs. holding force magnetic lock, with microprocessor based electronic circuitry that conforms to NFPA101, is easy-to-install, self contained and works with existing door hardware.

The #3101 delay egress system may be factory programmed to communicate directly with a building main computer via the on-board RS422 port.



Circle 428 on Rapid Reply

C.H. Ellis Kneel-Kit Tool Case

Service technicians who want to prevent the ache of sore knees will welcome the Ellis Kneel-Kit tool cases. Inside each case is a special built-in foam pad that has excellent thermal insulation and resiliency. The C.H. Ellis Company has five case styles with pallets designed to hold tools needed for specific types of servicing in this new line.



Circle 429 on Rapid Reply

Framon's New Spacing Block

A new spacing block is available for Framon Code Machine owners. The #5 block has 12 new spacings commonly found on foreign car keys, including .083 and .0985. Other spacings included on the new block are: .085, .091, .096, .097, .118, .119, .126, .145, and .155.

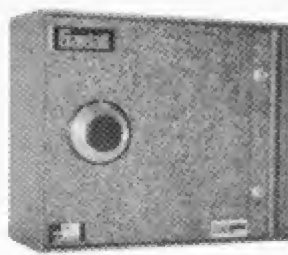
A total of five spacing blocks for foreign and domestic work are now available, and three for safety deposit box work.

Circle 430 on Rapid Reply

Gardall's SL6000 Wall Safe

Now available from Gardall Safe is their new extra deep wall safe, the SL6000. The safe is constructed of heavier materials than most wall safes on the market (1/4" Door, 3/16" Body, 43 lbs.) and is available with Group II Combination Lock. A key-op Lock is available as a "no charge" option.

This safe is especially suited for the storage of handguns in order to keep them protected from the wrong hands.



Circle 431 on Rapid Reply

GNM Adds Four Videos

GNM Videos announces four new videos. They are: Key Impressioning, Safe Manipulation, Safe Servicing, and Self Defense For Women.

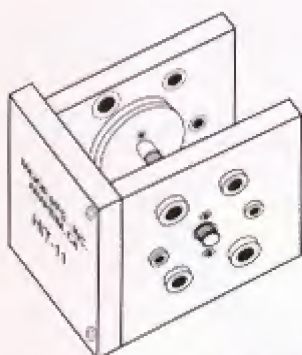
The tapes are the combined effort of instructors selected for their expertise in their field and GNM's production staff resulting in high quality, technically accurate training videos.

Circle 432 on Rapid Reply

Major's New Installation Tool

The second in a series of hardware installation tools has been announced by Major Manufacturing. The new multi-purpose jig, HIT-11, will retrofit doors to accept cylindrical lever handle locks by Corbin, Medeco, Russwin, and Yale.

The HIT-11 attaches to the door and locates all drill points with hardened drill guides; the thru-bolt holes and anchor plate lugs can then be drilled.



Circle 433 on Rapid Reply

PGS Marketing's Display System

The Pegable Gondola Spinner Display System (PGS, pronounced pegs) was designed and patented by PGS Marketing, Inc. This unique merchandising display consists of a rectangular pegboard, four sided inner box and can be installed anywhere on existing pegboard gondolas. The unit turns inside a tubular steel, chrome plated frame. PGS displays evenly distribute up to 300#'s of merchandise over the entire surface of the pegboard.



Circle 434 on Rapid Reply

Preso-Matic Lock Model 8200-A

The deadlatch lock Model 8200-A, designed for used by the disabled and handicapped has automatic bolt retraction and automatic locking. It unlocks on the exterior by pressing the correct four digit combination. When the last digit is pressed, the latch bolt automatically retracts, unlocking the door. The person operating the lock then pushes or pulls the door.



Circle 435 on Rapid Reply

Pride Barco's "Pri-Va-Cee Center"

The Pri-Va-Cee Center from Pride Barco shows hotel visitors that you care about their security concerns.

The cream colored unit can be discreetly mounted almost anywhere, in the room or bathroom, allowing guests absolute privacy and convenient access to their valuables. The 3 1/2" x 7" x 10" safe is made of sturdy welded aluminum, featuring a precision-cast door and cam lock.



Circle 436 on Rapid Reply



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Pro-Lok Introduces The "Unlocker"

Steering wheel locking bars are the hottest selling device in the automotive parts after market.

The #115 "Unlocker" is a new tool for locksmiths which allows locksmiths to quickly unlock the most popular steering wheel locking bars. This tool will save you time and make you money on one of the hottest products on the market.



THE UNLOCKER

Circle 437 on Rapid Reply

STI Upgrades Its Hazard Stopper®

Safety Technology International Inc. is announcing a new edition of its popular Hazard Stopper motion detector device that functions as both an alarm and an annunciator.

This new model features a low-battery indicator to assure proper operation and a swivel mount that allows the unit to be turned almost 360 degrees. Hazard Stopper utilizes a harmless motion detector to sense infrared rays generated by body heat and sounds an alarm or chime once movement is sensed.



Circle 438 on Rapid Reply

The Accumark I By Security Corners

Security Corners introduces the "Accumark I", a stamping fixture that not only imprints your company name and number into the head of keyblanks, but with the same tool imprints your custom message into the face of most brands of mortise cylinders as well.

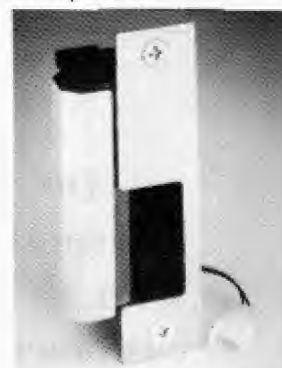
This tool is designed to be easy to use as well as last a lifetime.



Circle 439 on Rapid Reply

SDC's Heavy Duty Electric Strike

The Security Door Controls heavy duty electric strikes 16 series line is one of the strongest and most versatile on the market. These units accommodate most every type of lock, including the ability to contain, release and recapture a lockset with a one-inch deadbolt. The SDC 16 series is constructed entirely of stainless steel; is tamper resistant, and has been tested to have a forcing strength of greater than 2,000 pounds.



Circle 440 on Rapid Reply

Synergistics' Card Access

Synergistics Mini-PAC II, Access Control System provides a full-feature card access system at about half of the usual price.

Designed for the smaller company, the Mini-PC II supports one or two card readers and 600 cards, expandable to 3000. With an optional printer the system provides a record of each card access attempt, and offers PIN support, and alarm monitoring. Access levels of one, two or both doors can be set. The user data base can be edited on-line while still providing access control.



Circle 441 on Rapid Reply

Watchguard's Patio Bolt

Watchguard, Inc. has released a Hi Security Patio Bolt. The bolt has a 3/8" steel pin which can be removed for installation using a pull-and-twist action. The pin is reversible giving left or right hand operation. Both wood and metal thread screws are provided and are fully concealed behind the pin when installed. Metal strikes are supplied to fit over the pin hole as is a handy bracket for surface mounting the bolt on swing doors.



Circle 442 on Rapid Reply

"The Club" Maker Adds Door Club

Winner International, maker of The Club, a popular vehicle anti-theft device, has introduced The Door Club to help consumers keep their homes more secure from intruders.

The Door Club consists of a U-shaped steel bar configuration, 8" W x 6 1/4" H, that braces the bottom of the door. The bottom shaft of the product fits into a metal sleeve in the floor 2 inches from the door threshold in the middle of the doorway.

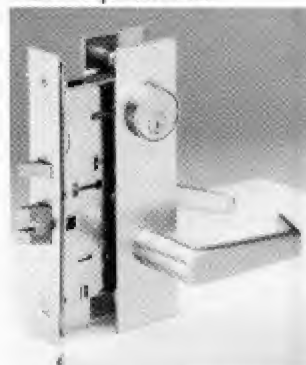


Circle 443 on Rapid Reply

Yale's Mortise Lock Retrofit Kit

The Yale 87FL Mortise Lock Retrofit Kit contains all the internal components necessary to convert Yale mechanical and electrified mortise locks from knob to lever trim.

The kit can be used with any of Yale's extensive line of attractive and functional lever handle sets, and the existing roses or escutcheon plates need not be replaced. Complete illustrated instructions are included to allow quick conversion to meet ADA requirements.



Circle 444 on Rapid Reply



by Jake Jakubowski

Don't Blame The Mirror!

"There are a tremendous number of established locksmiths who have helped struggling, new locksmiths."

During the last five years, or so, I have read numerous Letters to the Editor in *The National Locksmith* from new locksmiths that want to know how to get started. Generally, those letters go something like this:

"Dear Sir:

I just finished a course in locksmithing. I really want to get into the business full-time, but I can't afford to give up my present job. I asked a local locksmith for a job, and he said I did not have enough experience.

I even offered to work nights, and weekends for him for free, if he would help me learn more about the business. He just said: "No!" I thought locksmiths were supposed to help each other.

Any ideas you can give me about starting up would sure be helpful. I like your magazine.

A Student"

To each of you that has ever written such a letter, or those of you that wanted to but didn't, I would like to clarify a few points.

First, and foremost, there are a *tremendous* number of established locksmiths out there that have bent over backwards to help new, and struggling, locksmiths. They have given of their time, talent, and resources unselfishly, and without regard to the fact that, potentially, they are "training" a competitor. If you don't believe that, stop and think where all

the information you have read in *The National Locksmith* has come from ... from other locksmiths, that's where!

On the other hand, there have been a vast number of beginners that have taken up the time, utilized the resources, broken the equipment, "forgot" to return borrowed keys, code books, and tools, of the very people that were trying to help them. Considering those negatives, do you really wonder why an established locksmith might say, "No!" to a beginner?

As far as working for "free" for a locksmith, there's really no such thing

Continued on page 52

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Continued from page 50

as "free." If you are injured while working for, or wreck the service vehicle of, that shop or individual *their* insurance is what will pay the doctor and hospital. It is their insurance rates that will be increased.

And, it is they who will have to explain to the State Employment Commission why they had an employee that was injured, who was not being paid at all, let alone being paid minimum wage. Do you seriously believe that an investigator from the state, or federal government, is even going to entertain the idea that, "I was only teaching him/her the trade," as a reason for violating the wage, and hour laws? Not likely.

So, if you can't find an established locksmith that is willing to give you some pointers, and you just can't give up your present job, what can you do to begin building your own locksmithing business?

You can start by letting as many people as possible know that you are in "business." Do this by giving out your cards to *everyone* you meet or talk to ... let them know you are a locksmith. Put a small ad in the "Services" column of

your local "Shopper." Post your business card on community bulletin boards in restaurants, laundromats, and grocery stores. Put magnetic signs on your car, or van. Let people know who you are, and what you are doing.

Getting any business started can be tough. Keeping a fledgling business alive can, to say the least, be challenging! Especially, if you have not had any prior business experience.

After all, most of us have to eat, and pay bills, regardless of how well our new business is doing. Consequently, holding down a full time job, while working nights and weekends locksmithing, trying to buy the tools, equipment, and inventory you need, will be a demanding, and trying, experience.

Each of us that survived the "start-up" phase of our own business venture have met the challenges presented to us in different ways. Each of you that are contemplating becoming an independent locksmith will have to develop your own unique responses to the problems you encounter.

Hopefully, what I'm going to suggest to you will help you meet, and successfully overcome, some of the

problems you will face. Nothing that I suggest here requires a large amount of money to implement. In fact, I urge you to take the "bits and pieces" approach to acquiring what you need. What is absolutely essential, is a lot of hard work, and long hours and a smidgen of luck and a willingness on your part to do *whatever* you have to do to accomplish your goal of becoming a successful locksmith.

When Christie, (she's the person that keeps me from being the world's greatest grump!) and I first moved to North Carolina, and started our business, we decided that our first rule of business was going to be "No Payables!" That is, that somehow, regardless of what it took, *everything* that we ordered for the business (locks, tools, machines, etc.) would be paid for when delivered! It was not that we had a lot of money, in fact it was quite the opposite. What we wanted to do was make sure that at the end of the month, we did not owe money that we did not have. It was not the easiest route to take, but it worked for us.

The next "rule" was that I would immediately start locksmithing "full-time," and she would work full-time outside the business. (Within 6 months, Christie was no longer working outside, I needed her to handle the calls, and schedule the work.) That left me free to do the soliciting, give out cards, and do whatever work I happened to pick up. What neither of us realized when we decided to settle in the town we live in, was that we were moving into what the federal government classified as "a rural, economically depressed area." That meant, of course, that there was not much money available, and the area was not conducive to a new business start-up!

That's when we made our third *major* "business decision." We decided to act on the advice of a locksmith friend of ours in Florida (where we lived previously). We drove down to Raleigh, and rented a space (later, three spaces) at the N.C. State Flea Market! Although not exactly an instant success, week by week, we added more merchandise, and our sales increased proportionately.

Now, some of you might be thinking, "Is this guy with the long, strange name, for real? A locksmith in a flea market? He's kidding, right?" Well, a penny for your thoughts, because that's all they're worth! That flea

Continued on page 80

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by Dale Libby

Private Label Safes

"For years I have preached, attack the lock and the safe will open. Sometimes brand names are unknown."

Just what exactly is a "label" safe? It is a term that I use for any safe that is made by another company and someone else puts their name on it. A popular example of this is Sears or Montgomery Wards. They put their name on Meilink and Sentry safes. To the customer they have a "Sears Tower" safe. To the safeman, they have a Sentry safe.

The safeman must know this. If a particular safe is not mentioned in their reference books, the inexperienced safe technician may have problems. That is why, for years I have preached, attack the lock and the safe will open. Lets get to a concrete example to illustrate the point.

I was called on to open a "Corporate" safe, top unit which is shown in photograph one. I had and still do not have a good idea who made the safe, and I did not even bother to look it up in any of my books. There is a lot to be gleaned just by looking at the safe or container before you

actually touch it.

The dial is a LaGard dial, so one assumes a LaGard Lock with a key change lock. Because of the closeness of the dial to the opening handle, we can assume that the lock is mounted Vertical Up or Vertical Down (VU or VD). That is really all we need to know at this time.

I confirmed my thoughts by taking the lower door apart and seeing that, in fact the lock was mounted VU. When in doubt, I assume that a lock is mounted VU, except for particular brands of safe makers. If this were a Gary safe with the standard mounting configuration of a Gary safe, I would automatically assume Vertical Down. If the opening handle was below the combination dial ring, I would assume VD or Right Hand (RH).

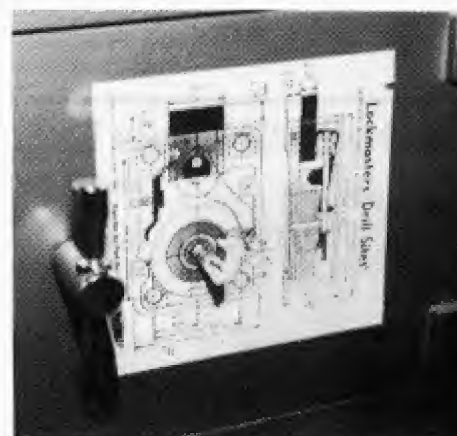
The first procedure was to remove the dial. On a LaGard dial, one should remember that the spindles are inserted from the top of the dial, and not just pressed in from the bottom, as on Mosler. These dial spindles are also slightly tapered, which means in effect that they are really hard to, if not impossible to pull without first modifying the end of the spindle. This is done with a drill and a 5/16" drill bit.

First remove the center cap with a knife. It will pop out with a little side pressure at position 25/75. There are two small clips that hold the insert in. After removing the black plastic insert, drill at least 1/4" off the end of the spindle. Then you will be able to pull it rather quickly with a dial puller tool. If you do not drill off some "clearance," you will not be able to pull the dial.

It really does not make a difference where you drill the hole to view the inside of the lock. If you are wrong, then just add 50 numbers to the hole that you made and the safe or chest will yield. Photograph two shows the placement of the magnetic template on the safe door. It is fitting over the dial

spindle which has been partially drilled away. Once the position you want is marked, just remove the template and drill where the locking lever should be.

The complaint on this safe was that the combination worked *hard* for a few weeks, and then it did not work at all. I tried to dial the safe open for 15



2. Using a magnetic template to accurately determine best drill point.

minutes but was unsuccessful. Drilling in this case was simpler and faster. The customer just wanted the lower door to replace the upper door, for they did not use the lower compartment at all.

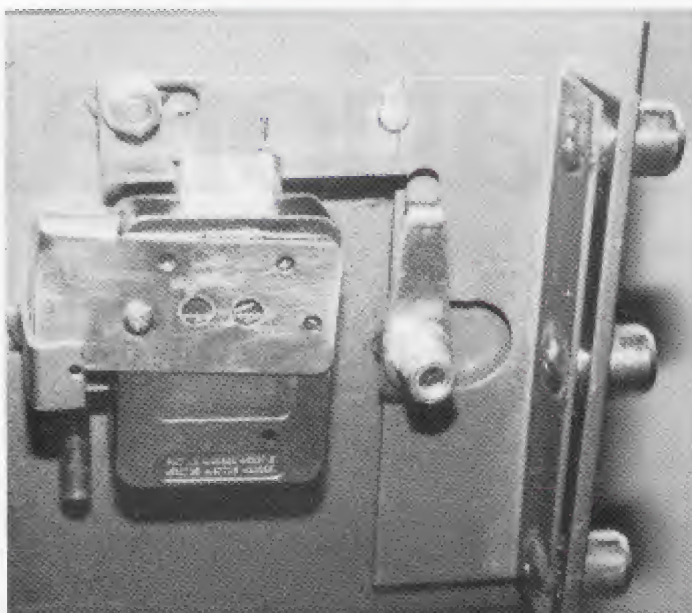
I drilled at about #23 and hit the lever, I then dialed the safe open and replaced the upper door with the lower door and vice versa. The inside configuration of the safe combination lock is shown in photograph three. The back cover has been removed. It is simplistic in design and function.

The lockbolt blocks the horizontal movement of the boltbar. The opening handle is connected to a "L" cam which operated the boltbar with the three lockbolts. The relocking device is held on with a large back cover screw; a double duty relocker set-up.

Photograph four shows what would happen if the back cover was punched off. The relocker bolt would pop up to block the movement of the horizontal



1. The Corporate "LABEL" safe.



3. Back view of open safe. Note relocker to left of lock with activator held on with left cover screw.

boltbar. This relocker bolt is not double locked so it is held in position by the spring only.

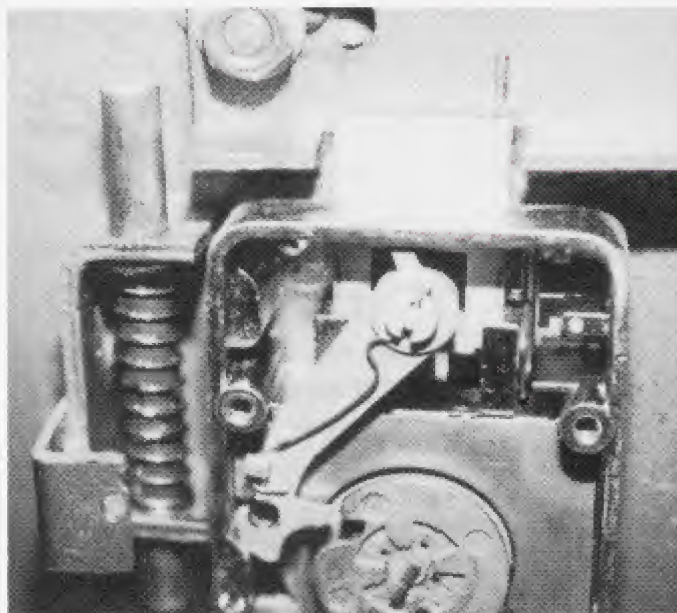
There is a regular relocker and an anti-fish plate in this LaGard Lock. The door does not have any hardplate.

The customer did not want the door repaired (for my price) and was going to get a new door and complete lock from the manufacturer.

I quoted my price for welding up the door and replacing the combination lock. I would not "work" on his lock to make it better. I do not want to work on a lock that has malfunctioned when I am putting my future time and labor on the line. Replace, rather than repair. It pays dividends in the end.

I scooped out the existing malfunctioning lock on my tool bench later that day. It seems that the second wheel was seven numbers off from the listed combination. Eventually I could have dialed it open, but when you plan to replace the lock anyway, why not make it fast and easy on yourself.

There is a feeling among older locksmiths that if you can fix anything that is broken, and charge a little for it, you are better than a locksmith that sells a whole new lock instead of fixing a bent tab or retainer. Who are we kidding? Are we in the business of being a "tinkerer" or a security professional? Over the years I have changed my way of thinking. I am a professional. So should you. Open and Prosper! §



4. Relocking device activated. This blocks horizontal movement of the bolt retracting mechanism.

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Trade Talk...

by Stephan C. Sharpe

Car Opening: Nissan

"Maintain a slight pressure against the rod, and slowly begin to draw the tool out of the door."

The 1993 Nissan Pick-up has maintained its current body style for another model year. The pickup uses a vertical button locking system, with the button mounted on the topside of the pickup's interior door

panel.

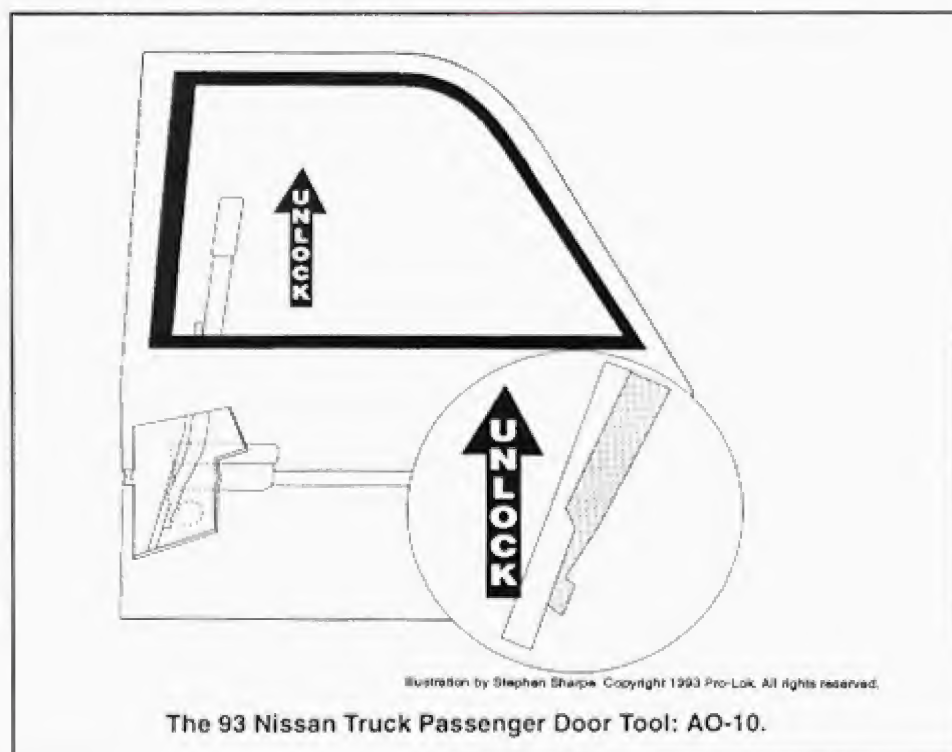
To open the '93 Nissan Pick-up, I suggest using a flat bar type opening tool such as the Pro-Lok AO-10 Slim Jim to hook the vertical rod.

Start your opening by inserting a wedge in the middle of the door.

Lightly curve the end of the tool so it tapers in towards the interior of the car.

Insert the tool into the door and lower the tool down about 16 inches into the door just below door handle.

Slide the tool across the door until the tool contacts the vertical button rod (you will see the button move inside the car).



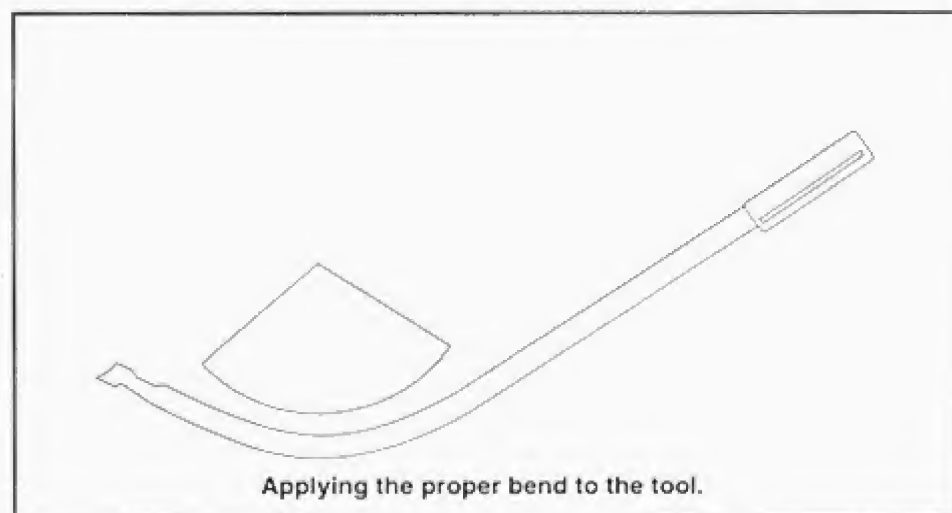
The tool properly inserted in door.

Maintain a slight pressure against the rod, and slowly begin to draw the tool out of the door. As the tool is drawn up out of the car, the bend will begin to straighten.

As the tool straightens, you will feel the button rod fall into the notch on the side of the tool.

Continue lifting while maintaining the slight pressure against the rod. As you lift, the tool will bind the rod and pull the rod up along with the tool.

Car Opening Tip: When you are bending your flat bar type (Slim Jim) openers, use a gradual bend on the tool. Start 10-12" from the end of the tool and round the tool into shape. Do not try to bend the tool at the tip because it is possible the tip could break off causing possible hand injuries! §



Bits & Pieces

Informative Tidbits For The Security Industry



by Tom Seroogy

While the key bittings have been available, the spacing and depth specifications for the new Toyota N001-2000 series codes have been pretty elusive. Some of our best sources, however, say to try these: Spacing — Shoulder to first cut is .098". Cut to cut is .0945". Depths — 1-.327, 2-.303, 3-.280, 4-.256.

This code series is being used on the 1993 Toyota Corolla wagon. The door and ignition locks will be using a split wafer system that is similar to but different than the Camry, and the X223 keyblank. So far, ignition and door lock parts have been hard to come by. Whole locksets can be obtained from Toyota using these part numbers: 69005-13160 for vehicles with the anti-theft device, and 69005-13190 for vehicles without the anti-theft device.

Here's a new tool to carry on your truck — a brick. Recently, Toyota recalled their 1987 to 1990 Camrys for problems with the electric lock system. Apparently, a relay within the system may stick, causing the door lock actuators to overheat and melt in the locked position. The car cannot be unlocked manually from the outside or inside and has caused a few entrapment problems. One locksmith having run into this problem (shortly before the recall) was advised to have the customer carry a brick inside the vehicle as a precaution.

Even though these vehicles have been recalled, there may still be a few out there. Customers experiencing this problem will notice a burning smell and the door panels will be hot to the touch. So, prepare yourself for the worst, carry a brick. Or, better yet, refer the problem to the nearest Toyota dealer.

I have had a lot of calls asking if there is a lock available for the HON four drawer file cabinet. There is a punch-out at the top right hand corner and a locking bar on the inside. The answer is yes. A lock kit is available from HON file cabinet dealers as part number HNFR26 for roughly \$30.00. Parts are also available separately from local locksmith distributors and cost roughly \$15.00 for all the parts.

Things go in cycles as they say. Taking its turn this time seems to be vehicles using the Renault slot key ignition. These ignitions were introduced in the 1986 Alliance. The key has six spaces and five depths and uses the M-N-P-R-S direct digit code series. The key (Silca NE57, Taylor X147, Jet RN30, Ilco RN30) received its name for the small slot or hole near the tip. A small lever fits into this slot as the key is inserted into the ignition keyway.

The problem seems to lie in removing this ignition for replacement or key generation. Picking is possible but hard with a sixth pin tumbler and lever added. Shimming from the front is the easiest method I've found.

Before shimming, the lever inside the keyway must be pushed to the back of the cylinder. Lubricate well with WD40 or a silicone spray. Insert a curved shim at the shear line. It's a tight fit but it will work. After shimming, turn the ignition, remove a retaining screw on the side of the ignition, and push the ignition retainer. The cylinder will slide out the front.

Unlike the older ignition styles, I have not found a code on the cylinder. Because the top tumbler area (bible) is a plastic insert and is hard to remove without damage, I generally replace the ignition and make a key for the old one back at the shop.

Good news for HPC 1200CM users. Five new cards will be released this January. The XF206 for new double sided 1991 and up Cavalier ignition key. This also includes 1992 and up Skylark, Grand AM and Achieva

models. The XF207 for Saturn, XF208 for the 1992 and up Camry, which also includes the 1993 Corolla sedan and the 1993 Geo Prism. The XF60 for the new 1993 Chrysler J0001—J3580 code series. And, last, the X33 for Loricentric 90. These cards will be available at The Locksmith Store and other HPC distributors.

I have gotten several calls from locksmiths worried about airbags on the new 1991 and up Cavaliers and 1992 Grand Ams and Achievas. The large square horn pad seems to be deceiving. To date the only GM columns having the airbag is the Saginaw tilt. Square body, standard and telescoping columns and columns using the Cavalier style ignition do not carry airbags at this time.

Also regarding the Cavalier. A change has been made for the 1993 GM J and N body vehicles (Cavalier, Skylark, Grand AM, and Achieva). The new double bitted key (Silca GM29, Curtis B68, Ilco P1099) introduced on the 1992 Cavalier is now changing. From what our sources have told us, key breakage has been a problem due to the thin dimension of the key at the center groove. To correct the problem the center groove has been removed. While the older keys will continue to work in the new ignitions, the new keys will not fit into the older ignitions. The new keys numbers are: Silca GM31, Curtis B84, and Ilco P1101.

Silca has added a line of neuter bow and personalized bow keys to their keyblank line. The neuter bow keys are coined with "Do Not Duplicate" on one side and blank on the other. Neuter bow are available in brass only. The personalized blanks come with your choice of personalized coining for both the front and back of the key. Personalized keys are nickel plated. The blanks are available in 22 different keyways, including Arrow, Dexter, Corbin, Russwin, Sargent, Schlage, Weiser, Weslock and Yale. §

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The Lighter Side

Finders, Keepers!



by Sara Probasco

Well, we've done it again. We haven't actually moved our locksmith store to a new location, but we've enlarged our internal space considerably. It seemed like a fairly simple project, when we first set it down on paper.

We share a common wall with a household appliance store that added a J.C. Penney catalog store to one side a couple of years ago. This year, they sold out the appliance part of their business and had much more space than they required for the remaining J.C. Penney's catalog store.

That was what first prompted our thoughts about expanding.

"Nothing to it," I remember Don saying after he'd gotten our landlord's blessing and financial backing for the project. "We'll simply move this wall about ten feet, subdivide the back part into two separate offices, and free up the present back-room space for inventory storage."

It sounded good to me. My desk had been situated between stacks of deadbolts and bins of parts for six years, and the two shelves allocated for office supplies groaned precariously overhead, beneath the weight of myriad boxes of stationary, envelopes, labels, rubber stamps, telephone and zip code directories, accounting ledgers, and other such necessities of office life. A separate room for me sounded like paradise.

That was before the carpenters started knocking out the wall.

"Honey, can you take that filter mask off long enough to wait on a couple of customers up here?" Don asked.

"I'll be happy to help," I replied, "but why must I remove my sinus' only defense against this ghastly sheetrock

dust?" To illustrate the point, I dragged a finger through the heavy white powder that was settling everywhere.

"Have you looked at yourself in the mirror? That mask is awful. The kid of that woman you waited on a few minutes ago is still at the top of the telephone poll outside our front door shrieking something about Friday the thirteenth, and claiming "Jason" works in our shop."

The constant wham-banging of sledge hammers smashing through the old wall and the whine of electric saws cutting through the old studs had already prompted several trips to the aspirin bottle. As if that wasn't enough, another set of carpenters was loudly erecting the new walls and dividers ten feet away, the electricians and telephone men were laughing and conversing loudly among themselves as they strung and stapled wiring along the new studs, and a couple of grumbling carpet installers were crawling about beneath everybody's feet trying to fit pad and carpet to size. I hated to think what it would be like when they started up with the new sheetrock and began to paint.

Whose idea was it to have everything done in one week, anyway? Surely I wasn't the one who had said, "OK, just as long as we're not torn up for weeks on end. I want everybody in and out before the middle of the month, if at all possible, so we can get on with getting everything in place."

And now, I couldn't find anything. Everyone involved had moved things around from place to place. All my carefully filled and labeled boxes with my top-of-the-desk junk (Good junk, you understand—not the kind you'd ever want to throw away!) had been scattered hither and yon, mixed in among stacks of locksmith magazines and bathroom supplies. It would take me months to get everything straightened out, if indeed that would be possible at all.

But, lo and behold, the day came when all the workmen had finished and departed. The new leaded glass entry

door for my office had arrived and was hanging in place, the new office furniture had been delivered and sat proudly on the carpeted floors of my separate office and Don's. Now, all that remained was to selectively sort through and transfer everything we intended to keep from the back room to the newly mounted shelving in our respective offices.

That brings us to one of the most important lessons I learned from this experience: when moving or organizing, don't keep anything you've had lying around for a year but haven't used or anything you find that you haven't missed until you see it.

"Oh, look, Don!" I exclaimed upon uncovering a box full of multicolor bulletin board stick-pins that had been hidden beneath a stack of other boxes. "I had forgotten we had these."

"Throw them out," he replied.

"But we can use them. They're hardly cracked at all."

"What's wrong with the flat-headed silver ones we have?"

"Nothing, only...."

"Don't we have plenty have them?"

"Yes, but...."

"How long has it been since you've seen those others?"

"I don't remember, actually, but I think I bought them when we lived in Amarillo. I didn't know where they were."

"Sara, that was thirteen years ago. Throw them out."

"Well, I'll be....," I muttered, my head in another dust-covered box. "You'll never believe what I just found." "Try me."

"Do you remember how peeved I was that my brother never wrote to thank us for his Christmas present last year, especially after I'd gone to the trouble of making those little sugar plum candies he loves so well?"

"Yes."

"Well, here it is."

"Here what is?"

"Here's his Christmas present, and the little tin of homemade goodies. I

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Beginner's Corner

Installing A Security Door



by Eugene Gentry

Installing a security door will put some extra profit in your pocket. You will get a mark up on the door, a mark up on the lockset and deadlock, which are not included with the door, and installation charges. Plus you can get a key change charge, so the security door and existing front door have the same key.

The security door has its own frame and is installed on the outside of the door frame in contrast to a screen door which is installed on the inside of the door frame. The security door measures 36" with about a 1" frame, so do some preliminary measuring before you buy the door to see that the existing frame is not too wide. Check for any overhang that might obstruct the door from opening. (See photograph 1.) Also check the brand of lockset and deadlock on the existing front door so you can match them up. (See photograph 2.)

The security door can be purchased at home improvement stores. When you open the box, you will see that the frame is already attached to the hinge side of the door. The door is made the same at the top and bottom and the latch is centered, so you can mount this door with a right hand swing or left hand swing.

Position the door so the latch is on the same side as the existing front door latch. Place a shim under the door to give some clearance between the door and threshold. (See photograph 3.) The frame is pre-drilled, so now tap in two nails to hold the door in place. Put in the nails just enough so that you can pull them out easily. Adjust the door to proper position.

Still using the nails to hold the door, pull one out and drill a hole in the frame smaller than the bolt. Caution: These



1. Check for overhang clearance.



2. Match the brand of lock to front door.



3. Shim for threshold clearance.

bolts are one way, so when you insert

the bolt, only tighten it about halfway. You can remove them with a vise grips if needed. Finish drilling and putting bolts in on frame side.

At this time, after rekeying, install the deadlock and lockset. Now you are ready to install the strike frame. Notice the two large holes about the center of the frame. (See photograph 4.) Extend the deadbolt on the deadlock, and position the frame by placing the deadbolt in the upper hole. Leave the deadbolt extended until the strike frame is secure. If the distance at the top of the frame is not the same as the hinge side frame, turn the strike frame upside down. Either eyeball or use a shim to give about a 1/4" clearance between the door and the frame. Tap in two nails to hold frame into place. At this time, tighten the bolts on the hinge side of the frame.



4. The two holes in the frame are strikes for deadbolt and lockset.

Drill holes in the wood frame for the bolts of the strike frame. Put in the bolts about halfway. Try the deadlock and the lockset to see if they are latching. Now tighten down on the bolts on the frame. On the security doors I installed, I had to file on both the deadlock hole and the lockset hole for a good fit.

The easy part is installing the top frame. Lay it across the top of the side frames and mark your holes. Drill, then install and tighten the bolts. Test the deadlock and lockset again to see that they work well.

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Access Control

Continued from page 41

types of equipment and their applications will be the biggest problem.

Electric strikes are the predominant electric hardware used. Most of us are familiar with the electronic buzz at apartment entrances, reception areas and other areas where access is electronically restricted. These are typically low voltage electric strikes that use AC current. (Later we'll talk about the difference between AC and DC current and why the AC strike buzzes.) And while they may all have that ubiquitous buzzing, each strike is different. Aside from the different finishes, there are different cutouts or faceplate sizes, solenoid duty ratings, jaw or bolt ratings, etc. All of these must be compatible not only to the access control system, but also to the door and frame application.

Fortunately, while most applications use electric strikes, the need for specialty electronic hardware has generated many lines of newer products like electrified cylindrical knobs and mortise locks, electromagnets, electrified exit devices, and even latches and deadbolts. This hardware, also, will have their own specifications and applications.

Remember that we have only scratched the surface of electronic security. Yet, while there is much ground to cover, if we take it step by step, access control can become less of an impracticable, mystical experience and be a truly profitable part of your business. §

Don't Blame The Mirror

Continued from page 52

market was responsible for our survival that first year! The business (cutting keys, repairing locks, selling new and used locks, doing automotive work, and making locks for antique Coke machines *netted* us more than many folks make in a year! (See *photograph 1.*) And that in just seventy-five selling days! Scout's honor!

On the down side of flea marketing, is the fact that *every* Saturday, and Sunday that the weather permits, you're out there for 8-10 hours each day, cutting keys, and selling locks, etc. (See *photographs 2 and 3.*) . Another plus, for us, is that we landed two of our best accounts through contacts we made at the flea market. An additional benefit to "fleaing" as a locksmith

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1. Side view of Coke machine lock.



2. Our overloaded van, ready to unload.



3. Our stall set up, ready for business.

(especially as a novice) is you get a real education in key identification! Let me tell you, at the flea market you will see just about anything, and everything, in the way of keys.

Now, perhaps you're saying, "O.K., Jake, maybe, just maybe, I want to give it a try. What do I need to get started?". Obviously, you need a key machine. And, of course, you need a good selection (quantity comes later) of key blanks. Kwikset, Schlage, Yale, Hudson, domestic and foreign automotive, etc.. Bring along some used locks that you have "salvaged", a couple of extension cords, a Thermos jug, or cooler, and a "bank" for change and the money to pay your rent. The biggest commodity that you will need is a willingness to "stick with it."

Your first couple of weekends might be a little slow, but after a while people will begin to realize that you are going to be in the same spot, and they look for you. In other words, you develop a clientele. Remember, you are basically selling an impulse item. That means that if 100 people pass your booth, a certain



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number of them will have a key made. If 1,000 pass your booth, ten times that number will have a key made, so make sure you select a *busy* market!

As you begin to make some money, you can add high visibility signs (see *photographs 4 and 5*) key chains, and new locks. (Keep in mind people are looking for bargains...we sold a blue zillion off-shore locks and about the same number of used locks.) Slide locks, door stops, and other similar items can be added to your inventory. It almost goes without saying that the more inventory you have, attractively displayed, and reasonably priced, the more dollar volume you will do.

I know that the concept of "fleaing"



4. Signs attract business to the booth.

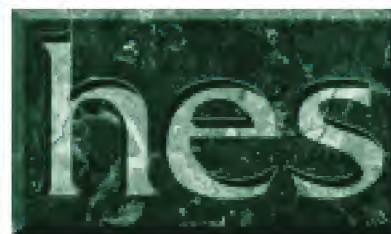


5. Display table with used lock department.

will not appeal to everyone that is reading this, but it is a viable alternative in the on-going struggle to "get the business off the ground." It is educational for the beginner, and it can definitely make you money.

Regardless, you owe it to yourself to pursue any means at your disposal to insure your own success, and independence. You cannot afford to reject any suggestion out of hand. If you do not try every reasonable possibility of making money, and establishing yourself in your chosen industry, then your lack of success lies squarely on *your* shoulders.

Whether you are a novice, or an established locksmith, if you have failed yourself today by neglecting to seize any viable opportunity you may have had; then when you get out of bed tomorrow morning, if you don't like what you see in the mirror...don't blame the mirror! §



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The Lighter Side

Continued from page 78

guess I never sent it. Oh, I remember, now. I brought it down here to tuck in a bag of those spicy peanuts we always order for our customers, only they didn't come in time last year and we canceled our order, remember? I guess I just forgot to send his package, after that."

"Are you going to send it to him now?"

"I don't know what to do. I could send it on, with no comment, and make him wonder if it was delayed in the mail."

"Nine months is a bit long for that, don't you think?"

"Or I could wait a couple of months and send it for Christmas this year, only the candies have turned kind of whitish."

"How about sending it now and telling him what happened?"

"No doubt, that's the right thing to do, but he'd never let me hear the end of it," I said, reclosing the box. "I'll have to meditate on that for a while."

When I looked around a moment later, Don had disappeared behind the closed door of his office. Tip-toeing to the door, I paused but could hear nothing inside, so I eased it open and pecked in. All I could see was the soles of Don's shoes propped high in the air. The steady drone of his breathing filled the air.

"What are you doing?" I asked.

Jumping, Don snorted, then peered at me over the toes of his shoes. "Oh, I thought I'd cabbage onto your idea and do a little meditating of my own."

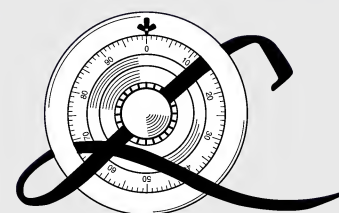
Smiling, I shook my head and closed the door as I returned to my sorting. I knew it was a mistake to move his recliner from home to his office, but at least, this way, he'll never know what I find in those boxes at the bottom of the stack. §

Beginner's Corner

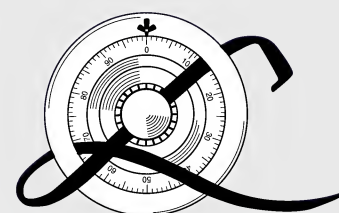
Continued from page 79

These security doors are nice looking and add to the decor of a house. They come in various colors and styles, some with glass and screen. All have bars with decorating styles.

After the security door is installed, ask the customer if there are any other locksets in the house that need repair or replacing. I was reminded of this when a customer caught me as I was about to leave, and said he had a storeroom lockset he wanted replaced. §



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Letters

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people in the unit directly across the hall from us moved out Monday." Her voice begins to falter. "I just found out that my cat is locked up in their place."

I think maybe I'm more tired than I realize. I said nothing while trying to decipher her statement.

"I tried to call the owners but I can't reach them. I know them both very well but I can't get hold of either of them." I can hear the tears well in her eyes.

"Can you come and open that unit up and let my cat out?"

She doesn't own the place or have authority to enter it. The owners are who-knows-where. I do not know the circumstances of the tenant's departure or what's left in the unit. But there's a cat in there that has been there since Monday. I count the days on my fingers. Nearly five days.

I seek confirmation. "Monday you lost your cat?"

"That's right," snifle.

"The people are completely out?"

"Yes," sob. "The place is completely empty. Except for my cat."

"Five days?"

"That's right." She gains control. "We tried to credit card the lock and got into the garage but we can't get into the house."

If this is a crime of breaking and entering it has begun and had been admitted to. The woman's serious. She wants her cat. By now so do I.

"Who do you say owns the place?" She told me their names. I did not know them well but I'd done work for them before. They seemed like reasonable people. And cats weren't totally bad folks.

"OK," I agreed. "I'll come up and get your cat out. I'll come to your house first and we'll enter together."

She gushed her thanks and hung up.

It took a lot longer to get there than it did to pick the lock. The cat was waiting at the door.

I tried not to anticipate but I did expect to see an emaciated animal. This black and white feline looked to be in as good a shape as most I had seen anywhere.

Jerry La Pierre
Maine
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